1984 WORLD DIRECTORY OF MAN-MADE FIBER PRODUCERS

NOTES & DEFINITIONS

This directory of producers lists each country separately and divides them into the following categories:

(1) Cellulosic plus Noncellulosic Fibers
(2) Olefin fiber
(3) Textile glass fiber

The locality shown represents a plant site.

The generic fiber names used in this survey are those established by the U.S. Federal Trade Commission (FTC). The *italicized* words are trademarks. All other fiber names are generic and appear in regular type.

- Indicates a company producing olefin fiber as well as other man made fiber(s). For example, Brasil Viscose S.A. produces olefin fiber in Brazil as well as nylon and rayon. The nylon and rayon entries for this company are in one section and the olefin entry is shown in the Olefin Fiber section.
- Indicates a new plant, in the planning stage or under construction, or a new facility for producing a new product at an existing plant. Such facilities are not expected to be operable before 1985 or later.

Yarn means filament yarn.

Monofil means an extruded monofilament and may be either a round or a rectangular (ribbon) cross section. Monofilaments for bristles are excluded.

Film includes **Slit**, tape produced by slitting an already attenuated wide sheet of olefin film; and **Split**, fibrillated slit film.

Not included in this survey is the slit film used for decorative or tying ribbon and such.

Captive means that most or all of the fiber produced is consumed by the company in a vertical operation.

GENERIC NAMES & TRADEMARKS

The following are generic names, in **bold** type, and a brief description of the fibers covered by each name and are shown in regular type.

GLASS FIBER

This fiber is made in two primary forms: continuous strand and staple sliver. Continuous strand is drawn fiber (i.e., from a textile type bushing), while staple sliver, which is produced in relatively small amounts, is a blown fiber.

Glass fiber is produced and sold as filament yarn, strand, roving, mat, chopped strand, milled fiber and staple yarn & sliver. In addition, there are two primary uses for glass fiber: Textile, used by textile mills in conventional constructions (e.g. drapery and tire cord) or Non Textile, used for nonconventional constructions (e.g. reinforced plastics and roofing shingles).

For additional information see the definitions on page 163 of the November 1983 *Organon* and page 55 of the March/April 1984 *Organon*.

CELLULOSIC (ARTIFICIAL) FIBERS

Acetate: Cellulose acetate. Cigarette filtration tow is excluded.

Triacetate: Cellulose acetate, wherein not less than 92% of the hydroxyl groups are acetylated.

Rayon: Regenerated cellulose, including substitutions for not more than 15% of the hydrogens of the hydroxyl groups. Includes high wet modulus fiber.

Cupra: Cuprammonium rayon.

The viscose rayon yarns are identified as **ind** (industrial or high tenacity yarn) and **reg** (regular or textile yarn).

NONCELLULOSIC (SYNTHETIC) FIBERS

Acrylic: At least 85% acrylonitrile by weight.

Modacrylic: 35% to 84% acrylonitrile by weight, except when it qualifies as rubber.

Azlon: Regenerated natural protein.

Nylon: A long chain synthetic polyamide in which less than 85% of the amide linkages are attached directly to two aromatic rings. The types are identified as 6, 66, etc. Where a company produces both type 6 and type 66, the designation 6/66 is used.

Aramid: A long chain synthetic polyamide in which at least 85% of the amide linkages are attached directly to two aromatic rings. In this survey, any aramid data are included with nylon.

Olefin: At least 85% ethylene, propylene or other olefin units by weight, except amorphous (noncrystalline) polyolefins qualifying as rubber. **E** means Polyethylene and **P** means Polypropylene. Also see adjoining notes on olefin fiber.

Polyester: At least 85% by weight of an ester of a substituted aromatic carboxylic acid, including but not restricted to substituted terephthalate units, and parasubstituted hydroxybenzoate units.

Saran: At least 80% vinylidene chloride by weight.

Spandex: At least 85% of segmented polyurethane.

Vinal: At least 50% by weight vinyl alcohol and wherein the vinyl alcohol plus acetal units are at least 85% by weight.

Vinyon: At least 85% vinyl chloride by weight.

Other man made fibers included in this survey, but not listed by the FTC, are **Polycarbonate** (U.S.A.), **Polychlal** (Japan), **Promix** (Japan) and **TFE-** & **FEP-fluorocarbon** (Fluoro) (Japan, U.S.A. & U.S.S.R.).

Not covered in this survey are fibers which would fall under the FTC's generic designations of rubber, lastrile, metallic and novoloid. Fibers falling under the FTC designations of anidex and nytril are no longer produced.

Carbon fibers are not included in this survey.

International Standard #2076, "Generic Names of Man-Made Fibres," as established by the International Organization for Standardization, lists some 23 names, of which the following are similar to the FTC designations: cupro, viscose, acetate, triacetate, acrylic, modacrylic, nylon or polyamide, polyester and glass. The IOS also lists modal (regenerated cellulose obtained by processes giving a high tenacity and a high wet modulus), alginate (metallic salts of alginic acid), chlorofibre (similar to the FTC's saran and vinyon), elastane (similar to the FTC's spandex), elastodiene, fluorofibre, polycarbamide, polyethylene & polypropylene (similar to the FTC's olefin), polyurethane, trivinyl and vinylal (similar to the FTC's vinal).

ALBANIA

(Producer not yet known)
Acrylic (staple)*
Polyester (staple)*

ARGENTINA

COAFI S.A.
Polyester Buenos Aires (yarn)

DUCILO S.A.I.C.
Nylon 66 Berazategui & Mercedes *Nylon Ducilo* (yarn)
Spandex Mercedes (fused multifil or coalesced monofil)

HISISA ARGENTINA S.A.I.C.I.F.
Acrylic Baradero *Cashmilon* (staple)

MANUFACTURAS DE FIBRAS SYNTETICAS (formerly Petroquimica Sudamericana)
Nylon 6 Olmos - Lapi (yarn)
Polyester Olmos - Lapi (yarn & staple)

MITEXTIL S.A.
Nylon 6 Buenos Aires (yarn)

M. NAHMIAS S.A.C.I.
Polyester Buenos Aires (yarn)

NICIEZA y TAVERNA HNOS. S.A.
Nylon 6 Chivilcoy *Grilon* (monofil)

RHODIA ARGENTINA QUIMICA e TEXTIL
Acetate Quilmes (yarn)
Polyester Quilmes *Tergal* (yarn)

SOCIEDAD NUEVAS INDUSTRIAS ARGENTINAS FIBRAS ARTIFICIALES S.A.I.C.F.I. (SNIAFA)
Nylon 6 Hernández-La Plata *Snialon* (yarn)
Rayon Platanos (reg yarn & staple)

SUDAMTEX S.A. TEXTIL SUDAMERICANA
Polyester Azul *Acrocel* (staple)

VALENCIANA ARGENTINA S.A.
Nylon 6 Buenos Aires (yarn)

OLEFIN FIBER

AGAPOL S.A. (P yarn)

MANUFACTURA FORTI ARGENTINA S.A.C.I.A.F.I. Buenos Aires (P yarn & staple)

PANAMERICA DE PLASTICOS S.A.I.C. Olivos (P staple)

TEXTILYUTE S.A.I.C. Isidro Casanova (P film)

VINISA S.A.I.C. Buenos Aires *Rafistal, Strofil* (E & P monofil)

GLASS FIBER

VIDRIERIA ARGENTINA S.A. (VASA)
Llavallol *Texover*

AUSTRALIA

FIBREMAKERS LTD.
Biconstituent Mulgrave, Victoria *Front Runner* (melded fabric)
Nylon 66 Bayswater, Victoria *Bri-Nylon* (yarn & monofil), Penrith, N.S.W. (tire cord)
Polyester Bayswater *Terylene* (yarn, staple & tow)

UNITED CARPET MILLS PTY. LTD.
Nylon 6 Thomastown, Victoria *Unilon* (yarn)
Polyester Thomastown (yarn)

In addition to the above, VILENE AUSTRALIA reportedly produces spunbonded products at Minto, N.S.W.; these are believed to be principally based on cellulosic fiber, but some polypropylene may be used

AUSTRALIA (continued)

OLEFIN FIBER

AMOCO FABRICS COMPANY, PATCHOGUE PLYMOUTH DIVISION Liverpool, N.S.W. *Poly Bac, Propex* (P film)

SARLON INDUSTRIES PTY. LTD. Punchbowl, N.S.W. (E & P monofil & film)

OLEFIN FILM FIBER, only

A. ABRAHAMS & SONS PTY. LTD., Clayton, Victoria (*Koala, Polytex*)

CORDEX INDUSTRIES PTY. LTD., Gladesville, N.S.W.

GEO. KINNEAR & SONS PTY. LTD., Footscray, Victoria (*Emu*)

H. J. PENNO, Adelaide, South Australia

TAPEX PTY. LTD., Sydney, N.S.W.

GLASS FIBER

AUSTRALIAN FIBREGLASS PTY. LIMITED Dandenong, Victoria *A.C.I. Fibreglass*

AUSTRIA

AUSTRIA FASERWERKE G.m.b.H.
Polyester Lenzing *Trevira* (staple)

CHEMIEFASER LENZING A.G.●
Fluoro Lenzing (yarn & staple)
Rayon Lenzing (staple)

GLANZSTOFF AUSTRIA G.m.b.H. (formerly Enka-Austria)
Rayon St. Pölten (ind & reg yarn)

OLEFIN FIBER

CHEMIE LINZ A.G. Linz *Asota, Linz-PP-Multifil, Linz-PP-Vlies* (P yarn, staple & spunbonded)

OLEFIN FILM FIBER, only

CHEMIEFASER LENZING A.G., Lenzing

M. TEUFELBERGER, Wels

SEUTTER, Unter Eggendorf

BANGLADESH

ASHUGANJ PETROCHEMICAL COMPLEX
Acrylic Ashuganj* (staple)

BANGLADESH CHEMICAL INDUSTRIES
Rayon (staple)

KARNAPHULI RAYON AND CHEMICALS LIMITED
Rayon Chandraghona, Chittagong (reg yarn & staple*)

PYLON INDUSTRIES LIMITED
Nylon 6 Fouzdarhat Industrial Estate, Chittagong *Pylon* (yarn)

BELGIUM

N.V. BAYER S.A.
Nylon 6 Antwerpen *Dorix* (staple)

BEAULIEU-NYLON S.A.●
Nylon 6 Kruishoutem, East Flanders (yarn)

N.V. CELANESE S.A.
Acetate Lanaken, Limburg (yarn)
Triacetate Lanaken (yarn)

FABELTA NINOVE S.A.
Rayon Ninove, East Flanders (reg yarn)

FABELTA ZWIJNAARDE S.A.
Nylon 66 Zwijnaarde, East Flanders *Fabelnyl* (yarn)

BELGIUM (continued)

OLEFIN FIBER

DELOTEX (P staple)

N.V. FIBRILO Zele, East Flanders (P staple & film)

S.A. LA LOKEROISE Lokeren, East Flanders *Alpha Carpet, Delta Carpet* (P yarn & staple)

OSTEND STORES & ROPEWORKS S.A. Ostend, West Flanders

POLYFIL N.V. (subsidiary of Beaulieu) Wielsbeke (P yarn)

T.T.C. POLYOLEFINS S.A. Overpelt, Limburg (P monofil)

OLEFIN FILM FIBER, only

N.V. JONCKVANSTEEN, Passendale

S.A PHORMIUM, Zele, East Flanders

POLYTEXCO S.P.R.L., Beveren, Kortryk

S.A. U.C.O., Ledeberg, Gent

GLASS FIBER

N.V. BAYER S.A. Antwerpen

OWENS-CORNING FIBERGLAS EUROPE S.A. Battice, Liege *Fiberglas*

Cellulosic production and capacity data are combined with the Netherlands on page 88-89. Noncellulosic production and capacity data are combined with the Netherlands and Luxembourg under "Benelux" on page 84-85.

BOLIVIA

FATIMA LTDA
Acrylic — La Paz (staple)

TEXTURBOL TEXTURIZADORA BOLIVIANA
Polyester — La Paz* (yarn)

BRAZIL

ARTEPESCA - S.A. ARTIGOS DE PESCA DO NORDESTE●
Nylon 6 — Igarassu, Pernambuco (monofil)

BANYLSA TECELAGEM DO BRASIL S.A.
Nylon 6 — Aratu, Bahia (yarn)
Polyester — Aratu *Fio Banylsa Poliester* (yarn)

BRASIL VISCOSE S.A.●
Nylon 6 — Jundiapeba, São Paulo *Giorgilon* (staple)
Rayon — Jundiapeba (staple)

CELANESE DO BRASIL - FIBRAS QUIMICAS LTDA.
Nylon 66 — São Bernardo do Campo, São Paulo *Celtrel, Celtrel BCF* (yarn)
Polyester — São Bernardo do Campo *Fortrel* (yarn), Pocos de Caldas, Minas Gerais *Fortrel* (staple)

CELANESE DO BRASIL NORDESTE S.A.
Polyester — Aratu, Bahia *Fortrel* (yarn & staple)

CIA. BRASILEIRA DE SINTÉTICOS
Nylon 6 — Osasco (yarn)
Polyester — Osasco *Trevira* (yarn)

CIA. NITRO QUIMICA BRASILEIRA
Rayon — São Miguel Paulista, São Paulo (reg yarn)

COBAFI - CIA. BAHIANA DE FIBRAS
Nylon 6 — Camaçari, Bahia (yarn)
Polyester — Camaçari (yarn & staple)

DE MILLUS S.A. INDUSTRIA E COMÉRCIO
Nylon 6 — Rio de Janeiro *Demilon* (yarn)
Polyester — Rio de Janeiro *Demilon* (yarn)

DU PONT S.A. INDÚSTRIAS QUÍMICAS
Spandex — Paulínia, São Paulo *Lycra* (fused multifil)

BRAZIL(continued)

EQUIPESCA - EQUIPAMENTOS DE PESCA S.A.
Nylon 6 — Campinas, São Paulo (monofil)

FIAÇAO GRASILEIRA DE RAYON - FIBRA S.A.
Nylon 6 — Americana & Osasco, São Paulo *Lilion* (yarn)
Polyester — São Paulo (yarn)
Rayon — Americana (reg yarn & staple)

FISIBA - FIBRAS SINTÉTICAS DA BAHIA S.A.
Acrylic — Camacari, Bahia *Triana* (staple)

INDUSTRIAS MATARAZZO DE FIBRAS SINTÉTICAS S.A.
Nylon 6 — São José dos Campos, São Paulo (yarn)

MANAP - MANUFATURA NACIONAL DE PLÁSTICOS●
Nylon 6 — Osasco, São Paulo *Caicara* (monofil)

MARCATTO S.A. IND. E COM.●
Nylon 6 — Jaraguá do Sul, Santa Catarina (monofil)

MAZZAFERRO POLIMEROS E FIBRAS SINTÉTICAS LTDA.
Nylon 6 — São Bernardo do Campo, São Paulo *Grilon, Trilon* (yarn & monofil)

MONOFIL - CIA. INDUSTRIAL DE MONOFILAMENTOS●
Nylon 6 — São Paulo, São Paulo (monofil)

NOVELSPUMA - ESPUMA DE NYLON S.A.
Nylon 6 — São Paulo, São Paulo (yarn)

POLYENKA S.A.
Polyester — Americana, São Paulo *Diolen* (yarn)

POLYNOR S.A. INDÚSTRIA E COMÉRCIO DE FIBRAS SINTETICAS DA PARAÍBA
Polyester — João Pessoa, Paraíba *Amilon, Polynor* (yarn & staple)

RHODIA S.A.
Acetate — Santo André, São Paulo (yarn)
Acrylic — São José dos Campos, São Paulo *Crylor* (staple)
Nylon 66 — Santo André *Dropnyl, Rhodianyl* (yarn & staple)
Polyester — Santo André *Dropgal-Tergal, Tergal* (yarn & staple), São José dos Campos *Bidim* (spunbonded)
Rayon — São José dos Campos (ind yarn & staple)

RHODIA NORDESTE S.A.
Polyester — Cabo, Pernambuco *Dropgal, Tergal* (yarn & staple)

SEARA IND. TÉXTIL LTDA.●
Nylon 6 — Londrina, Paraná (monofil)

SPUMAR S.A. INDÚSTRIA E COMÉRCIO●
Nylon 6 — São Paulo (yarn)

OLEFIN FIBER

ARTEPESCA - S.A. ARTIGOS DE PESCA DO NORDESTE Igarassu, Pernambuco (E & P monofil)

BRASIL VISCOSE S.A. Jundiapeba, São Paulo (P staple)

ETRÚRIA S.A. INDÚSTRIA DE FIBRAS E FIOS SINTÉTICOS Mairinque, São Paulo (P staple)

FADEMAC - FABRICA DE MATERIAIS DE CONSTR. S.A. Jacarei, São Paulo (P staple)

FITESA - FIAÇAO TÉXTIL DE EMBALAGENS PLÁSTICAS S.A. Guaiba, Rio Grande do Sul (P staple) & Porto Alegre, Rio Grande do Sul (P film)

INYLBRA S.A. TAPETES E VELUDOS Diadema, São Paulo (P staple)

MANAP - MANUFATURA NACIONAL DE PLÁSTICOS Osasco, São Paulo (P monofil)

MARCATTO S.A. IND. E COM. Jaragua do Sul, Santa Catarina (E & P monofil)

MONOFIL - CIA. INDUSTRIAL DE MONOFILAMENTOS São Paulo, São Paulo (P monofil)

SEARA IND. TÉXTIL LTDA. Londrina, Paraná (E & P monofil)

BRAZIL (continued)

SPUMAR S.A. INDUSTRIA E COMERCIO São Paulo. *Fibrilene, Polylene, Polyplan, Prolene* (P yarn, staple & film)

TAPETELENE - INDUSTRIA S.A. Pajucara/Maramguape, Ceare (P staple)

TINTORIA S.A. - BENEFICIAMENTO DE FIO (P yarn)

OLEFIN FILM FIBER, only

BRASMEN TOL CACAPAVA S.A., Cacapava, São Paulo

CACIQUE DE EMBALAGENS S.A. INDÚSTRIA E COMÉRCIO, Londrina, Paraná

C.A.T.A. - CIA. AMAZONIA TEXTIL DE ANIAGEM S.A., Belém, Para

CIA. FAB. YOLANDA S.A., Recife, Pernambuco

CIA. JAUENSE INDUSTRIAL, Jau, São Paulo

CIA. UNIAO MANUFATORA DE TECIDOS, Rio de Janeiro

DICOPLAST S.A. INDÚSTRIA E COMÉRCIO DE PLASTICOS, Presidente Prudente, São Paulo

EMPLA - EMBALAGENS PLÁSTICAS S.A., Rio de Janeiro

FIBRASA IND. E COM. DE FIOS E EMBALAGENS S.A., Espirito Santo

FIBROTEX TECELAGEM DE FIBRAS S.A., São Paulo

IMPLASA - INDÚSTRIA DE PLÁSTICOS ZANIOLO S.A., São Jose dos Pinhais, Paraná

INDÚSTRIA TÉXTIL TSUZUKI LTDA., Suzano, São Paulo

IPLAC DO BRASIL S.A. PLÁSTICOS INDUSTRIAIS, Fortaleza, Ceará*

NOVOPLAST IND. E COM. DE PLÁSTICOS, Nova Odessa, São Paulo

PLABASA - PLÁSTICOS DA BAHIA S.A., Salvador, Bahia

PLASMINAS - PLÁSTICOS MINAS LTDA., Tres Pontas, Minas Gerais

PLASTICOS DO PARANÁ LTDA., Londrina, Paraná

PLÁSTICOS LINIL S.A., Recife, Pernambuco

PLÁSTILIRA INDÚSTRIA DE EMBALAGENS LTDA., Campinas, São Paulo

QUALITAS IND. E COM. LTDA., São Paulo

SACOPLAST/PLANOSA - PLÁSTICOS DO NORDESTE S.A., Natal, Rio Grande do Norte

GLASS FIBER

OCFIBRAS Rio Claro, São Paulo *Fiberglas*

BULGARIA

KOMBINAT "DIMITAR DOMOV"●

Acrylic	Burgas *Bulana* (staple)
Nylon 6	Vidin *Vidlon* (yarn)
Polyester	Yambol *Yambolen* (yarn, staple & tow)

KOMBINAT "SVILOSA"

Rayon	Svishtov (reg yarn & staple)

OLEFIN FIBER

KOMBINAT "DIMITAR DOMOV" Yambol* (P staple)

CANADA

BADISCHE CANADA LIMITED

Nylon 6	Arnprior, Ontario *Zefran* (yarn & staple)

CELANESE CANADA INC., FIBRES DIVISION●

Acetate	Drummondville, Quebec (yarn)

CANADA (continued)

CELANESE CANADA (MILLHAVEN) INC.

Polyester	Millhaven, Ontario *Fortrel* (yarn, staple, tow & fiberfill)

COURTAULDS (CANADA) LIMITED

Rayon	Cornwall, Ontario (staple)

DU PONT CANADA INC.●

Nylon 66	Kingston, Ontario *Antron, Cantrece, Du Pont* (yarn, staple & tow)
Polyester	Kingston *Dacron* (yarn)
Spandex	Maitland *Lycra* (fused multifil)

FIRESTONE TEXTILES CO. - A DIVISION OF FIRESTONE CANADA LTD. - LTEE.

Nylon 6	Woodstock, Ontario (yarn & monofil)

OLEFIN FIBER

AMOCO FABRICS CO. Brantford & Hawkesbury, Ontario (E & P monofil & P film)

CALKO MILLS LTD. Riviere du Loup, Quebec (P monofil)

CANADA WESTERN CORDAGE CO., LTD. New Westminster, B.C. (P monofil)

CELANESE CANADA INC., FIBRES DIVISION St. Jean, Quebec *Protel* (P yarn & staple)

DOON TWINES LTD. Kitchener, Ontario (P yarn, monofil & staple)

DU PONT CANADA INC. North Bay, Ontario (P film)

GUELPH TWINES LTD. Guelph, Ontario (P monofil & film)

NOVASTRAND St. John, New Brunswick (P monofil)

POLY-TWINE CORP. LTD. Belleville, Ontario & Saskatoon, Saskatchewan Polytie, PolyTwine, Spiralok (P monofil)

SCHLEGEL COMPANY CANADA Oakville, (P monofil)

STRUDEX FIBRES LTD., DIVISION OF KRAUS CARPET MILLS LTD. Waterloo, (P yarn & staple - captive)

OLEFIN FILM FIBER, only

FIBERWORLD, LTD., Hawkesbury, Ont.

POLYMER INTERNATIONAL (N.S.) LTD., Truro, N.S.

GLASS FIBER

FIBERGLAS CANADA LIMITED Guelph, Ontario Fiberglas

CHILE

GOODYEAR DE CHILE, S.A.I.C.

Nylon 6	Maipu, Santiago (yarn & monofil)

INDUSTRIAS QUIMICAS GENERALES S.A.

Rayon	Quillota, Valparaiso (ind yarn & staple)

LANERA AUSTRAL S.A.

Polyester	Santiago (yarn, staple & tops)

MANUFACTURAS SUMAR S.A.

Nylon 6	El Pinar 172, Santiago *Crilobal* (yarn)
Polyester	El Pinar 172 *Poligal* (yarn & staple)

QUIMICA INDUSTRIAL S.A.

Polyester	Maipu, Santiago *Polycron* (staple & tops)

"RAYONHIL," INDUSTRIA NACIONAL DE RAYON S.A.

Rayon	Llolleo, Santiago (reg yarn & staple)

OLEFIN FIBER

TEJIDOS PLASTICOS INTERPLAST S.A. Santiago, Santiago (P film)

CHINA, PEOPLE'S REPUBLIC OF

Although reliable information on locations of man-made fiber plants in the People's Republic of China is not available, every effort has been made to make the following listing as complete as possible.

CHINA, PEOPLE'S REPUBLIC OF (continued)

RAYON and/or ACETATE PLANTS reported at: Amoy, Antung, Canton, Foshan, Kirin, Nanchang, Nanking, Paoting and Shanghai.

NYLON PLANTS reported at: Beijing; Hsinhsiang, Paoting Province; Jinzhou; Liaoyang; Pingdings; Shanghai; Shanyi; Sian; Sichuan; Sining; Tianjin; and Zhenjiang.

POLYESTER PLANTS reported at: Beijing; Fangshen, Beijing Province; Hangchow; Heilongjiang; Jinshan, Shanghai Province; Liaoyang; Nantong; Nanjing, Jiangsu Province; Shanghai; Sichuan; Tianjin; Tientsin; Xinhu; Yizheng; and Zhenjiang.

ACRYLIC PLANTS reported at: Chenchiang Harbin Province; Daquing; Lanzhou; Luda; and Shanghai.

NONCELLULOSIC PLANTS reported at: Beijing (vinal); Canton (vinyon); Chunking (vinyon); Foochow (vinyon); Lanzhou (olefin & vinal); Shanghai (vinyon); Shengli (vinyon); and Tientsin (vinyon).

The following three plants have been reported as producing glass fiber: Shanghai Glass Fiber Plant, Shanghai Tungfanghung Glass Fiber Plant and Tientsin Glass Fiber Plant.

COLOMBIA

CELANESE COLOMBIANA, S.A.
Acetate — Yumbo, near Cali, Valle del Cauca (yarn)
Nylon 6 — Sabaneta, Antioquia *Nylocel* (yarn)
Polyester — Yumbo *Fortrel* (yarn & staple)

COLTEFIBRAS S.A.
Polyester — Igatui, Antioquia* (yarn & staple)

ENKA DE COLOMBIA S.A.
Nylon 6 — Girardota, Antioquia *Enkalon* (yarn)
Polyester — Girardota *Terlenka* (yarn & staple)

FABRICA DE HILAZAS VANYLON S.A.
Nylon 6 — Barranquilla, Atlántico *Vanylon* (yarn & monofil)

POLIMEROS COLOMBIANOS S.A.
Polyester — Medellin, Antioquia *Primel* (yarn, staple, tow & tops)

ZYLETTE (LAFAYETTE)
Polyester — Bogotá (yarn)

OLEFIN FILM FIBER, only

COMPANIA NACIONAL DE EMPAQUES S.A., Medellin

PLASTICOS DE MAGDELENA LTDA., Santa Marta

POLYMER DE COLOMBIA S.A., Cartagena

COSTA RICA

OLYMPIC FIBERS, S.A.
Polyester — San Antonio de Belén (yarn)

CUBA

INDUSTRIAS CONSOLIDADAS DE MATANZAS, S.A.
Rayon — Matanzas (ind & reg yarn & staple)

CYPRUS

OLEFIN FIBER

LORDOS POLYSAC (LIMASSOL) LIMITED Limassol (P film)

CZECHOSLOVAKIA

CHEMICKÉ ZÁVODY JURAJA DIMITROVA, N.P.●
(GEORGE DIMITROV CHEMICAL WORKS, NATIONAL CORP.)
Rayon — Bratislava, Slovakia (reg yarn & staple)

CHEMLON, N.P. (CHEMLON, NATIONAL CORPORATION)
Nylon 6 — Humenné, Slovakia *Chemlon* (yarn)

CZECHOSLOVAKIA (continued)

CHEMOSVIT, N.P. (CHEMOSVIT, NATIONAL CORPORATION)●
Nylon 6 — Svit, Slovakia *Sviton, Svitontex* (yarn & staple)
Rayon — Svit (reg yarn)

SEVEROCESKÉ CHEMICKÉ ZÁVODY, N.P.
(NORTH BOHEMIAN CHEMICAL WORKS, NATIONAL CORP.)
Rayon — Lovosice, Bohemia (ind yarn)

SILON, N.P. (SILON, NATIONAL CORPORATION)
Nylon 6 — Planá nad Luznici, Bohemia *Silon* (yarn & monofil)
Polyester — Planá nad Luznic *Tesil, Tevyro, Velana* (staple, tow & fiberfill)

SLOVENSKY HODVÁB, N.P.
(SLOVAKIAN FILAMENT YARN, NATIONAL CORPORATION)
Polyester — Senica nad Myjavou, Slovakia *Slotera* (yarn)
Rayon — Senica nad Myjavou (reg yarn)

SPOLANA, N.P. (SPOLANA, NATIONAL CORPORATION)
Rayon — Neratovice, Bohemia (staple)

OLEFIN FIBER

CHEMICKÉ ZÁVODY JURAJA DIMITROVA, N.P. Bratislava *Istrona, Labren, Nobelex* (P yarn & staple)

CHEMOSVIT, N.P. Svit *Prolen, Texizol* (P yarn & spunbonded)

JUTA, N.P. Upice, Bohemia (P spunbonded)

OLEFIN FILM FIBER, only

JUTA, N.P. Adamov, Moravia and Bernartice u Trutnova, Dvur Králové, Jilemnice & Upice, Bohemia

POVAZSKÉ CHEMICKÉ ZÁVODY, N.P. Zilina, Slovakia

TECHNOLEN, N.P. Lomnice nad Popelkou, Bohemia

GLASS FIBER

SKLOPLAST, N.P. (SKLOPLAST, NATIONAL CORPORATION) Trnava, Slovakia (yarn, chopped strand & mat)

VERTEX, N.P. (VERTEX, NATIONAL CORPORATION) Litomysl, Bohemia (yarn, roving, mat & staple yarn)

DENMARK

OLEFIN FIBER

A/S FIBERTEX Aalborg (P staple)

ESBJERG TOVVAERKSFABRIK A/S Esbjerg *Westflex* (E & P monofil & film; P staple)

JACOB HOLM VARDE A/S Varde *Danaklon, IHS* (E & P staple & film), *Krenit* (P reinforcing fiber)

R.F.W. PLAST-INDUSTRI A/S Vejle (P film)

ROBLON A/S Frederikshavn (P film)

ECUADOR

ECUATORIANA DE TEJIDOS DE PUNTA
Polyester — Punta (yarn)

ENKADOR S.A.
Polyester — Sangolqui, Pichincha (yarn)

FIBRATEX S.A.
Polyester — Guayaquil, Guayas (yarn)

EGYPT

ESTABLISSEMENTS INDUSTRIELS POUR LA SOIE ET LE COTON S.A.A. (E.S.C.O.)
Rayon — Cairo (reg yarn)

MISR AL-AMIRIYA INDUSTRIAL FIBRE CO.
Polyester — Amiriya (yarn* & staple)

EGYPT (continued)

SOCIETE MISR POUR LA RAYONNE S.A.A. (MISR RAYON CO.)
Nylon 6 Kafr-el-Dawar *Misrnylon* (yarn), *Misrylon* (staple)
Polyester Kafr-el-Dawar *Polymisr* (yarn)
Rayon Kafr-el-Dawar (reg yarn & staple)

EL SALVADOR

OLEFIN FIBER

FILAMENTOS Y PERFILES, S.A. (FILPERSA) San Salvador *Duraplen* (E & P monofil)

SALVAPLASTIC, S.A. San Salvador (P monofil)

FINLAND

KEMIRA OY SÄTERI
Rayon Valkeakoski (staple)

LAPPFIBER OY
Nylon 66 Tornio (yarn)

OLEFIN FILM FIBER, only

MANILLA OY, Turku

PIIPPO OY, Lempaala

GLASS FIBER

A. AHLSTROM OY GLASSFIBRE Karhula *Kuitulasi* (roving & mat)

FRANCE

CELLATEX (a subsidiary of Rhône-Poulenc-Textile)
Rayon Givet, Ardennes, Grenoble, Isere (reg yarn)

COURTAULDS S.A.
Acrylic Pont du Leu, Coquelles, Pas-de-Calais *Courtelle* (staple)
Rayon Pont du Leu (staple)

ETS NYSAM
Nylon 6 St-Quentin, Aisne *Lilion* (yarn)

RHÔNE-POULENC-FIBERS (a subsidiary of Rhône-Poulenc-Textile)
Acrylic Colmar, Haut-Rhin *Crylor* (staple)
Nylon 66 Albi, Tarn; St-Laurent-Blangy, Pas-de-Calais; St. Quentin, Aisne & Valance, Drôme *Nylfrance* (yarn & staple)
Polyester Gauchy, Aisne & Valence *Bidim* (spunbonded), *Tergal* (yarn & staple)

RHOVYL (a subsidiary of Rhône-Poulenc-Textile)
Vinyon Tronville-en-Barrois, Meuse *Clevyl, Rhovyl, Thermovyl* (yarn & staple)

SOCIETE CHOMARAT
Nylon 6 Mariac (yarn - captive)

OLEFIN FIBER

PLASTIQUE DE ROUBAIX Roubaix (P film & staple)

SODOCA FABRICATION DE NONTISSES SYNTHETIQUES S.A.R.L. Neuf Brisach, Haut-Rhin (P spunbonded)

OLEFIN FILM FIBER, only

ETS. AMMANN & CIE. Saint-Louis

ETS. BATAILLE Rosendael

BIHR FRERES S.A. Xertigny

BOUSSAC SAINT FRERES S.A. Flixecourt

SEINE & LYS Paris

GLASS FIBER

OWENS-CORNING FIBERGLAS FRANCE L'Ardoise, Gard *Fiberglas*

SAINT-GOBAIN INDUSTRIES, DIVISION VERRE TEXTILE Chambéry, Savoie *Silionne, Stratifil, Stratimat, Verrane*

GERMAN DEMOCRATIC REPUBLIC

DEUTSCHE DEMOKRATISCHE REPUBLIK (EASTERN)

(Those facilities indicated by # are part of the trust VEB Chemiefaserkombinat Schwarza "Wilhelm Pieck.")

VEB CHEMIEFASERKOMBINAT SCHWARZA "WILHELM PIECK"
Nylon 6 Schwarza, Krs. Rudolstadt *Dederon* (yarn)
Rayon Schwarza (staple)

CHEMIEFASERWERK "FRIEDRICH ENGELS"#
Acrylic Premnitz, Krs. Rathenow *Wolpryla* (staple)
Nylon 6 Premnitz *Dederon* (staple)
Polyester Premnitz *Grisuten* (staple)
Rayon Premnitz (reg yarn)

CHEMIEFASERWERK "WILHELM-PIECK-STADT" GUBEN#
Nylon 6 Guben *Dederon* (yarn & monofil)
Polyester Guben *Grisuten* (yarn)

KUNSTSEIDENWERK "CLARA ZETKIN," ELSTERBERG#
Rayon Elsterberg, Krs. Greiz (reg yarn)

SACHSISCHES KUNSTSEIDENWERK "SIEGFRIED RADEL"#
Polyester Pirna• (yarn)
Rayon Pirna (ind, reg & cupra yarn)

SACHSISCHE ZELLWOLLE#
Rayon Plauen (staple)

SPINNSTOFFWERK "OTTO BUCHWITZ"#
Rayon Glauchau (staple)

ZELLSTOFF- UND ZELLWOLLWERKE WITTENBERGE#
Rayon Wittenberge (staple)

VEB FILMFABRIK FOTOCHEMISCHES KOMBINAT
Acrylic Wolfen, Krs. Bitterfeld *Wolpryla* (staple)
Rayon Wolfen (ind yarn & staple)
Vinyon Wolfen *Piviacid* (staple)

GLASS FIBER

VEB GLASSEIDENWERK Oschatz *Glasseidengewebe, Glasseiden-Roving, Glasseiden-Stapelbindermatten, Glasseiden-Twist, Glasseiden-Zwirn, Roving-Gewebe*

GERMANY, FEDERAL REPUBLIC OF

BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

BAYER A.G.
Acrylic Dormagen *Bayer-Textilfaser Dralon* (yarn & staple)
Nylon 6 Dormagen *Perlon-Draht* (monofil)
Spandex Dormagen *Bayer-Textilfaser Dorlastan* (fused multifil)

BOLTA WERKE G.m.b.H.
Saran Nurnberg *Bolta* (monofil)

DU PONT DE NEMOURS (DEUTSCHLAND)
Nylon 66 Uentrop, Kreis Unna (yarn & staple)
Polyester Uentrop *Dacron* (staple, tow & fiberfill)

ENKA A.G.
Nylon 6/66 Obernburg *Enka Nylon* (yarn), *Enka Perlon* (yarn)
Polyester Oberbruch & Obernburg *Diolen* (yarn & staple)
Rayon Kelsterbach, Oberbruch & Obernburg (ind & reg yarn)

E. HAHL KG•
Nylon 6 Munderkingen (staple)

FASERWERKE UNGEN G.m.b.H.
Acrylic Lingen (staple)

HOECHST A.G.
Acrylic Kelheim/Donau *Dolan* (staple)
Polyester Bad Hersfeld, Hessen & Bobingen/Augsburg-land *Trevira* (yarn, staple & spunbonded), *Trevira-Draht* (monofil)
Rayon Kelheim/Donau (staple)

ICI (EUROPA) FIBRES G.m.b.H.
Nylon 66 Ostringen *Timbrelle* (yarn & staple)
Polyester Ostringen *Terylene* (yarn)

GERMANY, FEDERAL REPUBLIC OF (continued)

BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

KUNERT
Nylon 66 Duggendorf (yarn)
Polyester Duggendorf (yarn)

LUTRAVIL SPINNVLIES●
Nylon 6 Kaiserslautern *Lutrabond* (spunbonded)
Polyester Kaiserslautern *Lutradur* (spunbonded)

NORDDEUTSCHE FASERWERKE G.m.b.H.
Nylon 6/66 Neumünster *SIKS NYLON* (yarn), *SIKS PERLON* (yarn)
Polyester Neumünster *Avitron* (yarn)

PHOENIX GUMMIWERK A.G.
Saran Hamburg/Harburg *Harlan* (monofil)

HEINRICH REINHOLD KG●
Nylon 6 Selbitz, Bayern (staple)

RHODIA A.G.
Acetate Freiburg/Br. *RHIAKABEL* (tow)
Nylon 66 Freiburg/Br. & Rottweil a. N/Württ. *RHOA-fil Nylfest, RHOA-Spinnfaser, RHOA-tex HELANCA* (yarn & staple)
Polyester Freiburg/Br. *RHOA-fil TERGAL, RHOA-tex TERGAL* (yarn)

SPINNSTOFFFABRIK ZEHLENDORF A.G.
Polyester Berlin-Zehlendorf *Trevira* (yarn & staple)

WACKER-CHEMIE G.m.b.H.
Vinal München-Burghausen *Wacker MP-Faser* (staple)

OLEFIN FIBER

J. F. ADOLFF A.G. Backnang (P film)

AMOCO FABRICS CO., DIVISION OF AMOCO (DEUTSCHLAND) G.m.b.H. Gronau (P film & staple)

J. H. BENECKE G.m.b.H. Peine *Corovin* (P spunbonded)

R. B. J. RUDOLF BILLERMANN KG Emsdetten (P yarn & staple)

CHEMISCHE WERKE HÜLS A.G. Marl, Kreis Recklinghausen, Westphalia *Vestolan* (E & P monofil)

DYNAMIT NOBEL A.G. Troisdorf, Bez. Köln *Trofil* (E & P monofil & tow)

DEUFIL Bergkamen (P yarn)

FASERWERKE BOTTROP G.m.b.H. Bottrop (P staple)

FÜSSENER TEXTIL A.G. Füssen (P film)

GEO. GLEISTEIN & SOHN Bremen-Vegesack (P film & monofil)

E. HAHL KG Munderkingen (P monofil)

RUDOLF HILLER KG (P monofil)

LUTRAVIL SPINNVLIES Kaiserslautern *Lutrasil* (P spunbonded)

HEINRICH REINHOLD KG Selbitz/Bayern (P staple)

STEEN Hamburg (P staple)

WESTFALIA SPINNEREI U. KUNSTOFFWERK SCHEM KG Minden (P monofil & film)

OLEFIN FILM FIBER, only

BAUMHÜTER G.m.b.H., Wiedenbrück

BREMER WOLL-KÄMMEREI, Bremen-Blumenthal

ERNST JAEGER, Düsseldorf-Reisholz

HEINZ G. JUNEMANN (NORDHESSISCHE HAARWARENFABRIK), Felsberg

KUSGA KUNSTOFFGARNE G.m.b.H., Mainz

POLYDRESS PLASTIC G.m.b.H., Michelstadt

POLYUNION KUNSTOFFWERK, Mesum

SCHILGEN, Emsdetten

SPOHN G.m.b.H., Freiburg

GERMANY, FEDERAL REPUBLIC OF (continued)

BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

B.T.F. TECKLENBORG & CO., Bremen-Grohn

DR. KARL WETEKAM & CO., Melsungen

GLASS FIBER

GEVETEX-TEXTILGLAS G.m.b.H., Aachen & Dortmund-Mengede *Gevetex*

SCHULLER GLASWERKE Westheim

GREECE

ETMA S.A.
Nylon 6/66 Athens (yarn)
Rayon Athens (reg yarn)

HELLENIC SYNTHETICS INDUSTRY
Polyester Kalogreza (yarn)

POLYETMA LTD.
Polyester Athens (yarn)

VOMVICRYL S.A. (affiliate of "Vomvix" S.A.)
Acrylic Stylis, near Lamia (staple, tow & tops)

"VOMVIX" S.A.
Nylon 6/66 Athens (yarn)
Polyester Athens (yarn)

OLEFIN FIBER

VIOFARM Argos (P staple)

OLEFIN FILM FIBER, only

ARIPLAST S.A. Athens

BIOSISAL Athens

DESSILA Piraeus

ELVISAK Athens

MARINE ROPE Athens

OLYMPIC ROPES Piraeus

SISAL ROPERY Salonika

C. VELLIS HEIRS S.A. Piraeus

VESY S.A. SYNTHETIC MATERIALS INDUSTRY Piraeus

GUATEMALA

HILOS SINTETICOS CENTROAMERICANOS, S.A.
Nylon 6 San José Pinula, Guatemala (yarn) (idle)

OLEFIN FIBER

CORDELERIA LA RAPIDA Guatemala, Guatemala (P monofil)

HONDURAS

OLEFIN FIBER

POLYMER, (subsidiary of United Brands) San Pedro Sula (P film)

HUNGARY

MAGYAR VISCOSAGYÁR (Hungarian Viscose Factory)●
Acrylic Nyergesújfalu *Crumeron* (staple)
Nylon 6 Nyergesújfalu *Danamid* (yarn & staple)
Rayon Nyergesújfalu (staple)

OLEFIN FIBER

KENDER JUTA TEXTILIPARI V. Budapest (P film)

KENDERFONÓ ÉS SZÖVÖIPARI V. SZEGED Szeged (P film)

MAGYAR VISCOSAGYÁR Nyergesújfalu *Popril* (P staple)

SOPRONI SZÖNYEGGYÁR Sopron *Sopilen* (P yarn)

TISZA CHEMICAL COMBINE Lenin Varas (P staple)

INDIA

THE AHMEDABAD MFG. & CALICO PRINTING CO. LTD., CALICO POLYESTER FIBRE DIV.
Polyester Baroda, Gujarat *Ilacron* (staple)

ANDHRA PRADESH RAYONS LTD.
Rayon Kamalapuram, Warangal District, Andhra Pradesh* (staple)

THE BARODA RAYON CORPORATION LIMITED
Nylon 6 Udhna, Gujarat *Snialon* (yarn)
Polyester Udhna *Sniater* (yarn)
Rayon Udhna (reg yarn)

BONGAIGAON REFINERY AND PETROCHEMICALS LTD.
Polyester Goalpara, Assam* (staple)

CENTURY ENKA LIMITED
Nylon 6 Bhosari, Pune, Maharashtra* *Enkalon* (yarn)
Polyester Bhosari (yarn)

CENTURY RAYON (Prop.:The Century Spg. & Mfg. Co. Ltd.)
Rayon Kalyan, near Bombay, Maharashtra (ind & reg yarn)

CHEMICALS & FIBRES OF INDIA LIMITED
Polyester Thane, near Bombay, Maharashtra *Terene* (staple)

DOSHI SYNTHETICS
Polyester Kandla, Gujarat* (yarn)

GARWARE NYLONS LIMITED
Nylon 6 Pimpri, Pune, Maharashtra* *Garware* (yarn & monofil)
Polyester Pimpri (yarn)

THE GWALIOR RAYON SILK MFG. (WVG) CO. LIMITED
Rayon Birlagram, Nagda, Madhya Pradesh & Birlakootoam, Mavoor, Kerala (staple)

INDIAN ORGANIC CHEMICALS LIMITED
Polyester Manali, Madras, Tamil Nadu *Futura* (staple)

INDIAN PETROCHEMICALS CORP. LTD.
Acrylic Vadodara, Baroda, Gujarat *Cashmilon* (staple)

THE INDIAN RAYON CORPORATION LIMITED
Rayon Veraval, Gujarat (reg yarn)

THE INDUSTRIAL PROMOTION & INVESTMENT CORPORATION OF ORISSA LTD.
Polyester Orissa* (staple)

J.K. RAYON, J.K. PURI
Rayon Kanpur, Utar Pradesh (reg yarn)

J.K. SYNTHETICS LIMITED
Acrylic Kota, Rajasthan *Jayacrylic* (staple)
Nylon 6 Kota *Jayanka, Jaycord, Jaykalon* (yarn, monofil & staple)
Polyester Calcutta, Kota, Orissa* *Jakaylene* (yarn & staple)

JAGITJIT COTTON TEXTILE MILLS LTD.
Nylon 6 Hoshiarpur, Punjab (yarn)

KANHAYA POLYSYNTHETICS
Polyester Gujarat, Kandla (staple)

KARNATAKA STATE INDUSTRIAL INVESTMENT AND DEVELOPMENT CORPORATION LIMITED
Polyester Karnataka* (staple)

KESORAM RAYON (Prop.: Kesoram Industries and Cotton Mills Ltd.)
Rayon Nayasarai, Hooghly, West Bengal (reg yarn)

M.P. STATE INDUSTRIAL DEVELOPMENT CORPORATION LTD.
Polyester Madhya Pradesh* (staple)

MADURA COTAS LTD.
Nylon 6 Maedak, Andhra Pradesh* (yarn)

INDIA (continued)

MODIPON LIMITED
Nylon 6 Modinagar, Utar Pradesh *Modipon* (yarn)
Polyester Modinagar (yarn)

THE NATIONAL RAYON CORPORATION LIMITED
Nylon 6 Mohone-Kalyan, near Bombay, Maharashtra* *N.R.C.* (yarn)
Rayon Mohone-Kalyan (ind & reg yarn)

NIRLON SYNTHETIC FIBRES & CHEMICALS LIMITED
Nylon 6 Bombay, Maharashtra *Nircord, Nirlon* (yarn & monofil)
Polyester Bombay *Nirester* (yarn)

ORKAY SILK MILLS PVT. LTD.
Polyester Patalganga, Maharashtra* (yarn)

P.O. PETROCHEMICALS
Acrylic Vadodara, Gujarat* (staple)
Polyester Baroda, Gujarat* (staple)

PASUPATI ACRYLON LIMITED
Acrylic Moradabad, Uttar Pradesh* (staple)

PETROFILS COOPERATIVE LIMITED
Polyester Jawaharnagar, Baroda, Gujarat (yarn)

PRADESHIYA INDUSTRIAL INVESTMENT CORPORATION OF UTTAR PRADESH
Polyester Uttar Pradesh* (yarn & staple)

PUNJAB STATE INDUSTRIAL DEVELOPMENT CORP. LTD.
Polyester Punjab (staple)

RELIANCE TEXTILE INDUSTRIES LTD.
Polyester Patalganga, Maharashtra* (yarn)

SHREE SYNTHETICS LIMITED
Nylon 6 Naulakhi, Ujain, Madhya Pradesh *Shreelon* (yarn)
Polyester Naulakhi *Shreester* (yarn)

SHRIRAM FIBRES LIMITED
Nylon 6 Manali, Madras, Tamil Nadu *Tufcord* (yarn)

SHRIRAM RAYONS
Rayon Kota, Rajasthan (ind yarn)

THE SIRSILK LIMITED
Acetate Sirpur-Kaghaznagar, Andhra Pradesh (yarn & staple)

SOUTH INDIA VISCOSE LIMITED
Rayon Sirumughai, near Mettupalayam, Tamil Nadu (reg yarn & staple)

STRETCH FIBRES (INDIA) LIMITED
Nylon 6 Nagpur, Maharashtra *SF* (yarn)

SWADESHI POLYTEX LIMITED
Polyester Gaziabad, Uttar Pradesh *Jailene* (staple)

TAMIL NADU INDUSTRIAL DEVELOPMENT CORP.
Polyester Madras, Tamil Nadu* (staple)
Rayon Madras* (staple)

THE TRAVANCORE RAYONS LIMITED
Rayon Rayonpuram, Kerala (reg yarn)

TUNGABHADRA FIBRES LTD.
Rayon Tungabhadra, Andhra Pradesh (staple)

OLEFIN FIBER

ACME INVESTMENTS LTD. Panki Industrial Area, Kanpur* (P yarn)

ANIL KUMAR JAIN Ankleshwar, Gujarat* (P yarn)

GUPTA NEEDLE INDUSTRIES PVT. LTD. Dharuhera, Haryana* (P yarn)

INDO SYNTHETICS CORP. (P yarn*)

J.K. BHAGAT Bhiwand, Alwar, Rajasthan* (P yarn)

KALYANI ASBESTOS CEMENT PVT. LTD. Kalol, Gujarat* (P yarn)

NEOMER LIMITED Baroda, Panchmahal, Gujarat *Proplon* (P staple)

NIAGARA INTERNATIONAL (P yarn*)

INDIA (continued)

POLYPROP INDUSTRIES Dharuhera, Haryana* (P yarn)

RAJENDRA V. PATEL Cambay, Gujarat* (P yarn)

SANJEEV SHRIYA Uttar Pradesh* (P yarn)

GLASS FIBER

FIBREGLASS PILKINGTON LIMITED Thane, near Bombay, Maharashtra

U. P. TWIGA FIBREGLASS Sikandarabad, Uttar Pradesh

INDONESIA

P.T. BERKAT INDAH AGUNG
Rayon Tangerang, West Java* (staple)

INDONESIA PENELITIAN SELULOSA (Cellulose Research Institute)
Rayon Bandung (pilot plant) (ind & reg yarn & staple)

P.T. INDO-BHARAT RAYON
Rayon Desa Cilangkap, Purwakarta (staple)

P. T. INDONESIA ASAHI CHEMICAL
Nylon 6 Jatiluhur, Purwakarta, West Java (yarn)

P. T. INDONESIA TORAY SYNTHETICS
Nylon 6 Tangerang, West Java (yarn)
Polyester Tangerang (staple)

P.T. INDUSTRI SANDANG I
Polyester Tangerang* (staple)

P.T. INDUSTRI SANDANG II
Rayon South Sumatra* & West Kalimantan* (staple)

P.T. KUMA FIBER (P.T. Kuraray Manunggal Fibre Industries)
Polyester Cikokol, Tangerang, West Java (staple)

P. T. SHINTA-INDAH DJAYA
Nylon 6 Tangerang, West Java (yarn)
Polyester Tangerang *Shinta* (yarn)

P. T. SOUTH PACIFIC VISCOSE
Rayon Purwakarta, West Java (staple)

P. T. SUSILIA INDAH SYNTHETIC FIBRES INDUSTRIES
Polyester Tangerang, West Java (yarn)

P. T. TEXMACO TAMAN SYNTHETIC
Polyester Kaliwungu Kendal, West Java (yarn)

P. T. TIFICO (P. T. Teijin Indonesia Fibre Corp.)
Polyester Tangerang, West Java (yarn & staple)

P. T. TOLARAM
Polyester (yarn)

P. T. TRI REMPOA SOLO SYNTHETIC
Polyester Rempon, Tangerang, West Java* (staple)

P. T. YASINTA
Polyester Tangerang, West Java (yarn)

IRAN

PARSYLON CORPORATION
Nylon 6 Khoram-Abad* (yarn)

POLYACRYL IRAN CORPORATION
Acrylic Isfahan (staple)
Polyester Isfahan (yarn & staple)

SHERKAT SAHAMI ALIAF
Nylon 6 Tehran *Aliaf* (yarn)

OLEFIN FIBER

JAHANCITT SPINNING & WEAVING CO. Tehran (P film)

IRAQ

HINDIYA RAYON FACTORY
Rayon Hindiya (reg yarn & staple)

IRELAND, REPUBLIC OF (EIRE)

ASAHI SYNTHETIC FIBRES (IRELAND) LTD.
Acrylic Ballina, Mayo *Cashmilon* (staple)

LIRELLE (IRELAND) LTD. (A Division of Unifi, Inc.)
Polyester Letterkenny *Lirelle* (yarn)

WELLMAN INTERNATIONAL LTD.
Nylon 6 & 66 Mullagh, Kells, Meath *Wellon* (staple)
Polyester Mullagh *Filwell, Wellene* (staple)

OLEFIN FIBER

F. DRAKE (IRELAND) LTD. Moate, Westmeath (P staple)

J. & L. F. GOODBODY (SYNTHETICS) LTD. Clara, Offaly (P yarn & film)

OLEFIN FILM FIBER, only

IRISH POLYSACKS LTD. Blarney, Cork

IRISH ROPES LTD. Newbridge, Kildare

POLYTEX LTD

ISRAEL

ISRAEL CHEMICAL FIBRES LIMITED
Acrylic Ashdod (staple & tow)

NILIT
Nylon 66 Migdal Ha-Emek (yarn)
Polyester Migdal Ha-Emek (yarn)

ITALY

ALBATESSILE S.p.A.
Polyester Alba, Piemonte (yarn)

ANICFIBRE S.p.A.
Acrylic Ottana & Porto Torres, Sardegna *Euroacril* (staple & tow)
Nylon 6 Pisticci, Lucania *Nivion* (yarn & staple)
Polyester Ottana & Pisticci *Fidion* (staple & tow)
Polyesteramide Pisticci (pilot plant) (yarn & staple)

AQUAFIL S.p.A.
Nylon 6 Arco di Trento, Trentino *Aqualon* (yarn)
Polyester Arco di Trento (yarn)

BEMBERG S.p.A.
Nylon 6 Gozzano, Piemonte *Ortalion* (yarn)
Rayon Gozzano (cupra yarn)

CARPEFIN S.p.A. (affiliate of Anicfibre)
Nylon 6 Forli, Emilia Romagna (yarn)

FILATURA DI VAL LESINA S.p.A.
Polyester Andalo Valtellino, Lombardia *Valena* (yarn)

FIMALON S.p.A.
Nylon 66 Castelnuovo Valsugana, Trentino Alto Adige (yarn)

FORTEX SIDAC S.p.A.
Nylon 6 Forli, Emilia Romagna *Forlion* (yarn)

FRATELLI FRANCHI S.p.A.
Nylon 6 Canapale, Toscana *Frankilon* (yarn)
Polyester Canapale *Frankilene* (yarn)

MEMOFIL
Nylon 6 Potenza, Basilicata (yarn)

ITALY (continued)

MONTEFIBRE GROUP●
CHATILLON S.p.A.
Acetate Vercelli, Piemonte (yarn)

SOCIETÀ ITALIANA POLIESTERE S.p.A.
Polyester Acerra, Campania *Terital* (yarn, staple & tow)

SOCIETÀ ITALIANA PRODOTTI ACRILIC S.p.A.
Acrylic Porto Marghera, Veneto *Leacril* (staple & tow)

NOVACETA S.p.A.
Acetate Magenta, Lombardia (yarn)

RADICI FIL S.p.A.
Nylon 6 Casnigo, Lombardia *Radital* (yarn & staple)

SETTE STELLE
Nylon 6 Castelgoffredo, Lombardia (yarn)

SNIA FIBRE S.p.A.
Acrylic Cesano Maderno, Lombardia & Villacidro, Sardegna *Velicren* (staple & tow)
Nylon 6 Castellaccio, Lazio, Cesano Maderno, Varedo, Lombardia, & Villacidro *Lilion* (yarn, staple & tow), Napoli, Campania *Lilionette, Lilionfec* (spunbonded)
Polyester Napoli *Wistel* (yarn)
Rayon Rieti, Lazio (reg yarn)

SOCIETÀ INDUSTRIALE CREMONESE S.p.A.
Rayon Pizzighettone, Lombardia (ind yarn)

TICFIL
Nylon 6 Caronno Pertusella (yarn)

TORCITURA DI BORGOMANERO S.p.A.
Nylon 6 Milano, Lombardia *Borgolon* (yarn)

OLEFIN FIBER

EUROFIL Gandino, Lombardia (P staple)

FILATURA I DELEBIO S.p.A. Delebio, Lombardia *Delebion* (P yarn)

FILLI FRANA Casnigo, Lombardia (P staple & film)

I.T.S. Legnano, Lombardia (P yarn)

HIMONT ITALIA S.p.A. (Formerly Merak S.p.A. and Neofil S.p.A.)
Terni, Umbria *Meraklon* (P yarn & staple)

NOVASAR Caronno Pertusella, Lombardia (P yarn & staple)

POLYMECON Zibido S. Giacomo, Lombardia (P staple & film)

SERGEL Casnigo, Lombardia (P staple & film)

SINTOFIL Como, Lombardia (P monofil)

TEXTILE PRODUKTE Villa D'Ogna, Lombardia (P staple)

OLEFIN FILM FIBER, only

CARPET BACKING S.p.A. Ceniga

I.T.P.

LICANA NORD S.p.A. Cassano d'Adda (Milano)

DE MAGISTRIS EMILIO Bagnolo Cremasco

MILANPLAST s.r.l. Milano

MOPLEFAN S.p.A. Milano

NEOFIBRE s.r.l. Lendinara

SACHIM (MUMMOLO) Bari

S.E.A.L. S.p.A. Milano

S.I.S.A.L. S.p.A. Piacenza

STIROSIR S.p.A. Milano

TESSITURA LOMBARDA DI CONSONNI ELIA ALBIATE

TEXTILE GLASS FIBER

MONTEDISON Vado Ligure, Liguria

VETROTEX ITALIA Besana Brianza, Lombardia (yarn)

JAPAN

ASAHI CHEMICAL INDUSTRY CO., LTD.
Acrylic Fuji *Cashmilon, Pewlon* (yarn & staple)
Nylon 6/66 Moriyama & Nobeoka *Asahi Kasei Nylon, Leona* (yarn, monofil & spunbonded)
Polyester Nobeoka *Asahi Kasei Ester* (yarn)
Rayon Nobeoka (reg & cupra yarn, cupra staple & cupra spunbonded)
Saran Suzuka (yarn, monofil & staple)
Spandex Moriyama *Roica*

DAIWABO CO., LTD.●
Rayon Masuda (staple)

FUJI SPINNING CO., LTD.
Rayon Toyo (staple)
Spandex Kozakai *Fujibo Spandex*

JAPAN EXLAN CO., LTD.
Acrylic Saidaiji *Exlan* (staple)

KANEBO RAYON, LTD.
Rayon Hofu (staple)

KANEBO SYNTHETIC FIBERS, LTD.
Acrylic Hofu *Kanebo Acryl* (staple)
Nylon 6 Hofu *Kanebo Nylon* (yarn)
Polyester Hofu & Sabae *Kanebo Polyester* (yarn)
Spandex Hofu *Kanebo Spandex*

KANEGAFUCHI CHEMICAL INDUSTRY CO., LTD.
Modacrylic Takasago *Kanecaron, Kanekalon* (staple & tow)

KOHJIN CO., LTD.
Polychlal Yatsushiro *Cordelan* (staple)
Rayon Yatsushiro (staple)

KURARAY CO., LTD.
Polyester Saijo & Tamashima *Kuraray Polyester* (yarn & staple)
Rayon Kurashiki, Saijo & Tamashima (reg yarn)
Vinal Okayama *Cremona, Kuralon* (yarn, monofil & staple)

KUREHA CHEMICAL INDUSTRY CO., LTD.
Saran Kaibara & Mibu *Krehalon* (yarn & monofil)
Vinyon Mibu *Viclon* (monofil)

MITSUBISHI ACETATE CO., LTD.
Acetate Toyama (yarn & tow)
Triacetate Toyama (yarn)

MITSUBISHI RAYON CO., LTD.●
Acrylic Otake *Finel, Silpalon, Vonnel* (yarn & staple)
Polyester Toyohashi *Soluna* (yarn), Lunaace (staple)

NIPPON ESTER CO., LTD. (subsidiary of Unitika, Kanebo and Mitsubishi Chemical Industry)
Polyester Okazaki & Sabae *Kanebo Ester, Unitika Ester* (yarn & staple)

NISSHIN SPINNING CO., LTD.
Rayon Tokushima (staple)
Spandex Tokushima *Mobilon*

NITIVY CO., LTD.
Vinal Fujieda *Niti-Vilon, Solvron, Vilon* (yarn)

NITTO BOSEKI CO., LTD.● (See Ube-Nitto Kasei)
Rayon Fukuyama (staple)

OMIKENSHI CO., LTD.
Rayon Kakogawa (staple)

TEIJIN LTD.
Aramid Iwakuni *Teijinconex* (staple)
Nylon 6 Mihara *Teijin Nylon* (yarn)
Polyester Ehime, Iwakuni, Matsuyama & Tokuyama *Teijin-Tetoron (yarn & staple)*
Vinyon Iwakuni *Teviron* (yarn)

TEIJIN ACETATE LTD. (subsidiary of Teijin Ltd.)
Acetate Matsuyama (yarn)

JAPAN (continued)

TOHO BESLON CO., LTD.
Acrylic — Mishima *Beslon* (staple & tow)

TOHO RAYON CO., LTD.
Rayon — Tokushima *Tovis* (staple)

TORAY INDUSTRIES, INC.
Acrylic — Ehime *Toraylon* (staple)
Fluoro — Ehime (pilot plant) *Toyoflon* (yarn)
Nylon 6 — Aichi, Ishikawa*, Nagoya, Okazaki, Otsu & Shiga *Amilan, Toray Nylon* (yarn & staple)
Nylon 6/66 copolymer — Aichi *Tapilon* (yarn)
Nylon 66 — Aichi *Promilan* (yarn)
Polyester — Ehime, Ishikawa & Okazaki *Toray Tetoron* (yarn & staple)

TORAY-MONOFILAMENT CO., LTD.
Nylon 6 — Okazaki *Toray Nylon* (monofil & staple*)

TOYO CHEMICAL CO., LTD.
Vinyon — Ofuna *Envilon* (yarn & monofil)

TOYO PRODUCTS CO., LTD.
Spandex — Shiga *Opelon* (fused multifil)

TOYOBO CO., LTD.●
Nylon 6 — Tsuruga *Toyobo Nylon* (yarn)
Polyester — Iwakuni & Tsuruga *Toyobo Ester* (yarn & staple)
Promix — Tsuruga *Chinon* (yarn)
Rayon — Iwakuni *Tufcel* (staple)
Spandex — Tsuruga *Espa*

TOYOBO PETCORD CO., LTD.
Polyester — Tsuruga *Toyobo Petcord* (yarn)

UNITIKA LTD.
Nylon 6 — Uji *Unitika* (yarn, monofil & staple)
Polyester — Okazaki *Malix* (ind yarn & spunbonded)

UNITIKA KASEI CO., LTD.
Vinal — Sakoshi (Akoh City) *Mewlon* (yarn, monofil & staple)

UNITIKA RAYON CO., LTD.
Rayon — Okazaki & Uji (ind & reg yarn)

YOSHIDA KOGYO K.K.
Polyester — Kurobe (yarn)

OLEFIN FIBER

CHISSO POLYPRO FIBER CO., LTD. Moriyama *Chisso Polypro, ES Fiber* (P yarn & staple)

DAIWABO CO., LTD. Harima *Daiwabo Polypro, NBF Fiber* (E & P staple)

HAGIHARA INDUSTRY CO., LTD. Kurashiki (E monofil & film)

HIRATA SPINNING CO., LTD. Yokkaichi *Hiralon* (E & P yarn & monofil)

INABA SEIKO, LTD. Gamagori (E monofil)

KANEYA SEIKO, LTD. Hokkaido & Kushiro (P monofil)

MARUAI CO., LTD. Toyohashi (E monofil)

MITSUBISHI RAYON CO., LTD. Toyohashi *Mitsubishi Pylen* (P yarn & monofil)

MITSUI TOATSU CHEMICALS, INC. Iwakuni (Pilot Plant) & Nagoya *Hi-Zex* (E monofil)

NAGANO KAKO CO., LTD. Nagano (E monofil)

SHOWA POLYMER CO., LTD. Ibaraki (E monofil & film)

TAI-RAY CO., LTD. Mito *Danzex, Danzex Lite, Liplon* (E monofil, P yarn & monofil)

TANIYAMA CHEMICAL INDUSTRY CO., LTD. Okayama *Tanikalon* (E monofil)

TOA WOOL SPINNING & WEAVING CO., LTD. Tomari *Toabo Polypro* (P staple)

JAPAN (continued)

TONEN SEKIYUKAGAKU K.K. (TONEN PETROCHEMICAL CO., LTD.) Kawasaki *Tapyrus* (P spunbonded)

TOYOBO CO., LTD. Osaka (Pilot Plant) (E monofil)

UBE-NITTO KASEI CO., LTD. Fukuyama & Gifu *Sun Line, Ube-Nitto Polypro* (E monofil & P yarn, monofil & staple)

OLEFIN FILM FIBER, only

DAIDO KASEI Osaka

FUJIMOTO SANGYO Osaka

OKAMOTO CHEMICAL Ehime

SAKAI KASEI Osaka

SANSO JUSHI Yokkaichi

SANTO CHEMICAL Aichi

SEKISUI CHEMICAL Amagasaki & Nara

TOYAMA Chiba

WAKO SPINNING CO. Gifu

YAMAJIN TEXTILE Fukui

GLASS FIBER

ASAHI FIBER GLASS CO., LTD. Ibaraki & Shonan *Glasslon*

ASAHI-SCHWEBEL CO., LTD. Moriyama

CENTRAL GLASSFIBER CO., LTD. Matsusaka

FUJI FIBER GLASS CO. Moka

KANEBO, LTD. Gunma *Textoglass*

NIPPON GLASS FIBER CO., LTD. Ibaraki & Tsu *Micro Glass*

THE NIPPON MINERAL FIBER MFG. CO. Tarui & Yuki *Superfine*

NITTO BOSEKI CO., LTD. Fukushima *Iceberg*

PARAMOUNT GLASS MFG. CO., LTD. Koriyama & Suzuka *Fether Glass*

UNITIKA U.M. GLASS CO., LTD. Kyoto *Unitika U.M.*

KENYA

AFRICA SYNTHETIC FIBER LTD.
Nylon 6 — Thika (yarn)
Polyester — Thika (staple)

JAYDEES KNITTING LTD.
Polyester — Nairobi (yarn)

KENYA FIBRE CORPORATION LTD.
Polyester — Nanyuki (yarn & staple)

SUN FLAG LTD.
Polyester — (yarn)

OLEFIN FIBER

UNISACK LTD. Thika (P film)

KOREA
PEOPLE'S DEMOCRATIC REPUBLIC OF (NORTH)

A number of man-made fiber plants are said to be operating in North Korea (see June 1970 *Organon* issue, page 113); however, no data for this country are recorded in any table of this issue due to lack of reliable information.

KOREA
REPUBLIC OF (SOUTH)

CHEIL SYNTHETIC TEXTILES COMPANY
Polyester — Kumi *Eslon* (yarn & staple)

KOREA REPUBLIC OF (SOUTH) (continued)

DAEHAN SYNTHETIC FIBER COMPANY
Polyester Pusan & Ulsan *Acelan* (yarn & staple)

GORYEO NYLON CORPORATION LTD.
Nylon 6 Sungsumuyn (yarn)

HANIL SYNTHETIC FIBER INDUSTRIAL COMPANY
Acrylic Masan *Cashmilon* (staple)

JEIL SYNTHETIC FIBERS COMPANY●
Polyester Seoul *Oplen* (yarn)

KOHAP, LTD.●
Nylon 6 Shihung *Palmylon* (yarn & staple)
Polyester Shihung (yarn & staple)

KOLON INDUSTRIES INC.
Nylon 6 Kumi, Sungsumyun & Taegu *Kolon* (yarn)
Polyester Kumi *Kolon* (yarn)

SAMYANG COMPANY, LTD.
Polyester Chunju *Triron* (yarn & staple)

SUNKYUNG FIBRES LTD.
Acetate Suwon (yarn & tow)
Polyester Suwon & Ulsan *Sunkyung* (yarn & staple)

TAE KWANG INDUSTRIAL COMPANY
Acrylic Ulsan *Acelan* (staple)
Spandex Ulsan

TONG KOOK FIBRES LTD.
Polyester Kumi* (yarn)

TONG YANG NYLON COMPANY
Nylon 6 Anyang & Ulsan *Toplon* (yarn)
Polyester Ulsan *Toplon* (yarn)

TONG YANG POLYESTER COMPANY
Polyester Ulsan *Toplon* (yarn)

WONJIN RAYON COMPANY, LTD.
Rayon Donong *Coray* (reg yarn & staple)

OLEFIN FIBER

JEIL SYNTHETIC FIBERS COMPANY Seoul *Oplene* (P yarn & staple)

KOHAP, LTD. Shihung *Happylon, Pylon* (P staple)

KUMSUNG SYNTHETIC FIBER CO., LTD. Seoul *Hopelon, Polon* (P staple) (idle)

LIBYA

LIBYA NATIONAL OIL CORPORATION (LINOCO)
Nylon 6 Marsa Al-Brega* (yarn)
Polyester Marsa Al-Brega* (staple)

LUXEMBOURG

TECHNOFIBRES
Polyester Mertert (yarn)

Production and capacity data are combined with Belgium and the Netherlands under "Benelux" on page 84.

OLEFIN FIBER

DU PONT FIBRES S.A. Contern-Hesperange *Typar* (P spunbonded)

MALAYSIA

PENFIBRE SDN. BHD.
Polyester Penang (staple)

MALTA

NYLON KNITTING CO. LTD.
Nylon 6 Qormi (yarn)

Production and capacity data are combined with Italy.

MEXICO

CELANESE MEXICANA, S.A.
Acetate Ocotlán, Jalisco (yarn & staple)
Acrylic Zacapu, Michoacán (staple, tow & tops)
Nylon 6 Ocotlán & Toluca, México *Duracel, Nycel* (yarn & staple)
Polyester Ocotlán, Querétaro, Querétaro & Toluca *Crolan* (yarn & staple)
Rayon Zacapu (ind & reg yarn & staple)

CELULOSA Y DERIVADOS, S.A.
Acrylic Atequiza, Jalisco *Crysel* (staple, tow & tops)
Rayon Monterrey, Nuevo León (ind & reg yarn)

FIBRAS QUIMICAS, S.A.
Nylon 6 Monterrey, Nuevo León *Supernylon Cydsa* (yarn & monofil)
Polyester Monterrey *Terlenka* (yarn)

FIBRAS SINTETICAS, S.A.
Acrylic Cotaxtla, Veracruz *Fisisa* (staple, tow & tops)
Nylon 6 Cotaxtla *Fisisa* (yarn & monofil)
Polyester Cotaxtla & México *Fisisa* (yarn & staple)

FIBRASOMNI, S.A.●
Nylon 6 Ixtapalapa, D.F. *Omni-Nylon* (monofil)
Saran Ixtapalapa *Omni-Saran* (monofil)

FINACRIL, S.A.
Acrylic Altamira (staple, tow & tops)

INDUSTRIAS PETROQUIMICAS MEXICANAS, S.A.
Polyester El Salto, Jalisco *Inpetmex* (yarn)

KIMEX S.A.
Nylon 6 Tlalnepantla, México *Aztecron* (yarn)
Polyester Tlalnepantla *Kintrel* (yarn)

NYLON DE MEXICO, S.A.
Nylon 6 La Leona, Nuevo León *Nylfil* (yarn & staple)
Polyester La Leona *Delcron* (yarn, staple, tow & fiberfill)
Spandex La Leona *Likra* (fused multifil)

OLEFIN FIBER

FIBRASOMNI, S.A. Ixtapalapa, D.F. *Politen-Omni* (E monofil), *Polyprop-Omni* (P yarn & monofil)

INDUSTRIAS POLIFIL, S.A. Ixtacuixtla, Tlaxcala *Pliana* (P yarn & staple)

PLASTICOS INDUSTRIALIZADOS, S.A. Monterrey, Nuevo León (P staple)

OLEFIN FILM FIBER, only

HILOS Y CORDELES, S.A. Tlalnepantla, México

PLASTICEL, S.A. Monterrey, Nuevo León (*Plasticel*)

POLISAC, S.A. (affiliate of Nylon de México, S.A.), Guadalajara, Jalisco (*Polisac*)

GLASS FIBER

VITRO-FIBRAS, S.A. Zacatenco, D.F. *Vitro-Fibras*

NETHERLANDS

DU PONT DE NEMOURS (NEDERLAND) N.V.
Spandex Dordrecht *Lycra* (fused multifil)

ENKA B.V.
Aramid Arnhem, Emmen *Arenka* (yarn)
Nylon 6 Emmen *Enka Perlon, Enkalon* (yarn)
Polyester Emmen *Diolen, Terlenka* (yarn & staple)
Rayon Arnhem (ind yarn) & Ede (reg yarn)

NETHERLANDS (continued)

OLEFIN FIBER

LANKHORST TOUWFABRIEKEN B.V. Sneek *Tiptolene* (E monofil & P film)

T.T.C. POLYOLEFINS B.V. Nijverdal (P monofil, film & staple)

N.V. VERTO Rotterdam (P film)

GLASS FIBER

SILENKA B.V. Hoogezand (Groningen) *Silenka*

Cellulosic production and capacity data are combined with Belgium on page 88-89. Noncellulosic production and producing capacity data are combined with Belgium and Luxembourg under "Benelux" on page 84-85.

NICARAGUA

OLEFIN FIBER

MANUFACTURERA CENTROAMERICANA S.A. (MACEN) Managua (P film)

NIGERIA

NICHEMTEX INDUSTRIES LTD.
Polyester Ikorodu, Lagos *Nigerlene* (yarn & staple)

NORWAY

OLEFIN FIBER

A/S PLATON, AVD. TEKSTIL Notodden *Filmtex* (E & P film)

NORFIL-NORPACK A/S Stavern, near Larvik *Akvaflex* (P yarn, E & P monofil & film)

STAL OG TAU Tonsberg *Norseflex* (P film)

GLASS FIBER

NORSK GLASSFIBER A/S Birkeland

PAKISTAN

BENGAL FIBER INDUSTRIES, c/o BENGAL OIL MILLS LIMITED
Nylon 6 Karachi *Nylpak* (yarn)
Polyester Karachi (yarn & staple)

DILON LIMITED
Nylon 6 Landhi *Dilon* (yarn)
Polyester (yarn*)

GATRON INDUSTRIES LIMITED
Polyester Hub Chowki (yarn)

ICI PAKISTAN MANUFACTURERS LTD.
Polyester Lahore *Tere-Pak* (staple)

NATIONAL FIBERS LIMITED
Polyester Korangi, Karachi (yarn & staple)

NILOM NYLON MILLS LIMITED
Nylon 6 Lyallpur *Nilom* (yarn & monofil)

PAK FIBRE INDUSTRIES LIMITED
Polyester Hub Chowki (yarn)

POLYTEX
Polyester (yarn)

RAVI RAYON LIMITED
Acetate Kala Shah Kaku, Sheikhupura District (yarn)

RUPALI POLYESTER LIMITED
Polyester Karachi* (yarn & staple))

S.G. RAYON MILLS LIMITED
Polyester Karachi (yarn)

SYNTHETIC POLYLON
Polyester Katri (yarn), Hub Chowki (staple)

PERU

BAYER INDUSTRIAL S.A.
Acrylic Lima *Dralon* (staple)

FILAMENTOS INDUSTRIALES, S.A.
Nylon 6 Lima* (yarn)
Polyester Lima (yarn)

MANUFACTURA NYLON S.A.
Nylon 6 Vitarte, near Lima (yarn)
Polyester Vitarte *Diolen* (staple)

MANUFACTURAS DEL SUR S.A.
Nylon 6 Arequipa *Long Life, Mistilon* (yarn)
Polyester Arequipa (yarn & staple)

RAYON Y CELANESE PERUANA S.A.
Acetate Lima (yarn)
Nylon Lima (staple)
Polyester Lima *Forcel* (yarn, staple, tow & tops)

RETEX PERUANA, S.A.
Nylon 6 Ventanilla, Callao (yarn)

OLEFIN FILM FIBER, only

NORSAC S.A. Trujillo

POLICEL DEL PERU S.A., Lima

SACOS DEL SUR S.A. Arequipa

SACOS PISCO S.A. Pisco

PHILIPPINES, REPUBLIC OF THE

AMERICAN PHILIPPINE FIBER INDUSTRIES, INC.
Nylon 6 San Pedro, Laguna *Apfi Nylon* (yarn)
Polyester San Pedro *Apfi Polyester* (yarn)

FILIPINAS SYNTHETIC FIBER CORPORATION
Polyester Sta. Rosa, Laguna *Filsyn* (yarn & staple)

LAKEVIEW INDUSTRIAL CORPORATION
Polyester Carmona, Rizal *Licron* (yarn & staple)

PHILIPPINE POLYAMIDE INDUSTRIAL CORPORATION (PPIC)
Nylon 6 Calamba, Laguna *Philippine Polyamide* (yarn)

TEXFIBER CORPORATION
Nylon 6 Taytay, Rizal *Texfiber* (yarn)

OLEFIN FIBER

INDUSTRIAL TEXTILE MANUFACTURING CO. (ITEMCOP) Mandaluyong, Rizal (P film)

MANILA CORDAGE COMPANY Manila (P film)

POLAND

CHODAKOWSKIE ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX"
Rayon Sochaczew (reg yarn)

WROCLAWSKIE ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX"
Rayon Wrocław (reg yarn)

ZAKLADY WLOKIEN CHEMICZNYCH "CHEMITEX-ANILANA"
Acrylic Łódź *Anilana* (staple)
Azlon Łódź *Wipolan* (staple, casein base)

ZAKLADY WŁOKIEN CHEMICZNYCH "CHEMITEX-CELWISKOZA"
Polyester Jelenia Góra *Elana* (staple)
Rayon Jelenia Góra (staple)
Spandex Jelenia Góra (pilot plant) *Elaston* (yarn)

ZAKLADY WŁOKIEN CHEMICZNYCH "ELANA"
Polyester Toruń, Bydgoszcz *Torlen* (yarn), *Elana* (staple)

POLAND (continued)

ZAKŁADY WŁOKIEN CHEMICZNYCH "STILON"
Nylon 6 Gorzów Wielkopolski *Lanastil, Stilon* (yarn), *Polana* (staple)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISKORD"●
Rayon Szczecin-Zydowce (reg yarn)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISTOM"
Rayon Tomaszów Mazowiecki, Łódź (ind & reg yarn & staple)

OLEFIN FIBER

ZAKŁADY PRZEMYSŁU LNIARSKIEGO LENKO Bielsko-Biała (P film)

ZAKŁADY PRZEMYSŁU LNIARSKIEGO SKARBKOW Mirsk, Wrocław (P staple)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISKORD" Szczecin-Zydowce (P staple)

GLASS FIBER

KROSNIENSKIE HUTY SZKŁA Krosno

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-ANILANA" Łódź *Polsilon*

PORTUGAL

COMPANHIA INDUSTRIAL DE FIBRAS ARTIFICIAIS (CIFA), S.A.R.L.
Nylon 6 Sobrado, Valongo *Cifalon* (yarn)
Rayon Sobrado (reg yarn & staple)

FIBRAS SINTÉTICAS DE PORTUGAL, S.A.R.L. (FISIPE)
Acrylic Lisbon *Vonnel* (staple, tow & tops)

FINICISA - FIBRAS SINTÉTICAS, S.A.R.L.
Polyester Portalegre, Alto Alentejo *Terylene* (staple)

TÊXTIL ARTIFICIAL DO PORTO, LDA.
Rayon Porto (reg yarn)

OLEFIN FIBER

ALICATIFAS DA LOUSA (P staple)

FERCOL (P staple)

LUSOTUFO (P staple)

QUIMIGAL - QUIMICA DE PORTUGAL, E.P. Barreiro (P staple & film)

OLEFIN FILM FIBER, only

CERFIL Maia - Douro

CORDEX - COMPANHIA INDUSTRIAL TEXTIL, S.A.R.L. Esmoriz

COTESI - COMPANHIA DE TEXTEIS SINTÉTICOS S.A.R.L. Carvalhos

EUROFIL - INDUSTRIAS DE PETROLEOS PLASTICOS E FILAMENTOS, S.A.R.L. Lisbon

FÁBRICA DE TAPETES VITÓRIA Mira d'Aire

FERNANDES & COSTA, LDA. Seia

MANUEL RODRIGUES DE LIMA & FILHOS Cortegaca

MANUEL RODRIGUES D'OLIVEIRA, S.A. LDA. M. Maia

QUINTAS & QUINTAS Povoa de Varzim

SICOR - SOCIEDADE INDUSTRIAL DE CORDOARIA S.A.R.L. Cortegaca

GLASS FIBER

QUIMIGAL - QUIMICA DE PORTUGAL, E.P.● Barreiro

ROMANIA

COMBINATUL DE FIBRE ARTIFICIALE
Rayon Brăila, Dej* & Suceava* (ind yarn & staple)
Polyester Vaslui (yarn)

FABRICA DE FIBRE ARTIFICIALE "VISCOFIL"
Rayon Popesti-Leordeni, near Bucureşti (reg yarn)

FABRICA DE FIBRE ARTIFICIALE "VÎSCOZA"
Rayon Lupeni (reg yarn)

UZINA DE FIBRE SINTETICE IAŞI
Polyester Iaşi *Teron* (yarn, staple, tow & tops)

UZINA DE FIBRE SINTETICE SĂVINEŞTI
Acrylic Săvineşti, near Piatra Neamt (Bacau Region) *Melana* (staple & tops)
Nylon 6 Săvineşti *Relon* (yarn & staple)

SOUTH AFRICA, REPUBLIC OF

CONSOLIDATED TEXTILE MILLS (part of Frame Group of Companies)
Polyester Jacobs, Natal (yarn & staple - captive)

HOECHST SOUTH AFRICA (PTY.) LTD.
Polyester Milnerton, Cape Province *Trevira* (staple)

KAYMAC INDUSTRIES
Polyester Atlantis Cape *Bidim* (spunbonded)

SOUTH AFRICAN NYLON SPINNERS (PTY.) LIMITED
Nylon 66 Bellville, Cape Province *Bri-Nylon* (yarn)
Polyester Bellville & Hammarsdale, Natal *Terylene* (yarn)

OLEFIN FIBER

ROMATEX MILLS Jacobs, Natal (P film)

SPAIN

BRILEN S.A.
Polyester Barbastro, Huesca & Igualada, Barcelona (yarn & staple)

CYANENKA S.A.
Acrylic Prat de Llobregat, Barcelona *Crilenka* (staple & tow)

INDUSTRIAS DEL ACETATO DE CELULOSA, S.A. (INACSA)
Acetate La Batlloria, Barcelona (yarn)

INDUSTRIAS QUIMICAS TEXTILES S.A. (INQUITEX)
Nylon 6 Andoain, Guipuzcoa *Carbyl, Nylhair, Trinyl* (yarn & staple)

LA SEDA DE BARCELONA, S.A.
Nylon 6 Alcalá de Henares, Madrid *Dayan, Enkalon* (yarn & staple)
Polyester Prat de Llobregat, Barcelona *Terlenka* (yarn & staple)
Rayon Prat de Llobregat (ind & reg yarn)

MONTEFIBRE HISPANIA S.A.
Acrylic Miranda de Ebro, Burgos *Leacril* (staple)

NUREL S.A.
Nylon 6 Zaragoza, Zaragoza *Nurel* (yarn)
Polyester Zaragoza *Terylene* (yarn & staple)

SOCIEDAD ANONIMA DE FIBRAS ARTIFICIALES (SAFA)
Nylon 66 Blanes & San Julian de Ramis, Gerona *SAFA* (yarn & staple)
Polyester Blanes *Tergal, Teriber* (yarn & staple)

SOCIEDAD NACIONAL DE INDUSTRIAS APLICACIONES CELULOSA ESPANOLA, S.A. (SNIACE)
Nylon 6 Torrelavega, Santander *Lilion* (yarn & staple)
Rayon Torrelavega (staple)

TEXPESA HILADOS SYNTETICOS
Nylon 6 Banyeres (yarn)

OLEFIN FIBER

PAULAR, S.A. - EMPRESA PARA LA INDUSTRIA QUIMICA Puertollano, C.R. *Istrakin* (P monofil & film)

PROFILEX (P staple)

PROPILAN (P staple)

SPAIN (continued)

SERINA TEXTIL (P staple)

SOCIEDAD ANONIMA ITALO ESPANOLA (SAITES) Sabadell, Barcelona (P staple & film)

TEXTIL ARMENGOL Bruch, Barcelona (P staple & film)

OLEFIN FILM FIBER, only

CONDEROLS S.A. Granada

CORDELERIAS BARAS S.A. Gijon, Asturias

CORDELERIAS MAR S.A. Vigo, Pontevedra

HILATURAS Y CORDELERIA S.A. - "HILCOSA" Barcelona

HIRESA Callosa de Segura, Alicante

YUTE INDUSTRIAL S.A. Valencia

GLASS FIBER

FIBRAS MINERALES, S.A. Alcalá de Henares, Madrid *Vitrotex*

SRI LANKA

CEYLON PETROCHEMICAL CORPORATION
Nylon 6 Sapugaskan (yarn & monofil)

SWEDEN

SONESSON PLAST AB●
Nylon 6/66 Malmo (monofil)

SVENSKA RAYON AKTIEBOLAGET
Rayon Alvenas, Valberg (staple)

OLEFIN FIBER

SONESSON PLAST AB Malmo *Laveten* (E & P monofil)

GLASS FIBER

SCANDINAVIAN GLASFIBER AKTIEBOLAG Falkenberg

SWITZERLAND

EMS INDUSTRIES, LTD.
Nylon 6 Ems, Graubünden *Grilon* (staple)
Polyester Domat/Ems *Grilene* (staple)

NOYFIL S.A.
Nylon 6 Stabio (yarn)
Polyester Ems (yarn)

VISCOSUISSE AG
Nylon 6/66 Emmenbruecke, Luzern & Widnau, St. Gallen *Nylsuisse, Flixor* (yarn & staple)
Polyester Widnau *Tersuisse* (yarn)

OLEFIN FILM FIBER, only

AROVA SCHAFFHAUSEN A.G. Schaffhausen

VOGT & CO. Reinach

TAIWAN

CENTURY CHEMICAL INDUSTRY CORPORATION
Polyester Tainan *Centuron* (yarn)

CHENTA CHEMICAL INDUSTRIAL CORPORATION
Nylon 6 Kaohsiung *Rabbit* (yarn)

CHINA MAN-MADE FIBER CORPORATION
Rayon Tou Fen *Queen* (reg yarn & staple)

FORMOSA CHEMICALS & FIBER CORFORATION (part of Formosa Plastics Group)
Nylon 6 Chang Hwa *Sunylon* (yarn)
Rayon Chang Hwa *Tarsiyon* (reg yarn & staple)

TAIWAN (continued)

FORMOSA PLASTIC CORPORATION (part of Formosa Plastics Group)
Acrylic Kaohsiung & Lanchu *Tairylan* (staple, tow & tops)

HSIEH CHIN FISHING NET COMPANY, LTD.●
Nylon 6 Kaohsiung *Hsieh Chin* (monofil - captive)

HUALON - TEIJIN CORPORATION
Nylon 6 Chungho, Tao Yuan & Tou Fen (yarn)
Polyester Chungho, Tou Fen & Yim Kao *Hualon* (yarn & staple)

HUNG CHOU CHEMICAL INDUSTRY COMPANY, LTD.
Polyester Kwei Shan *Hunvira* (yarn)

JANG DAH NYLON INDUSTRIAL COMPANY, LTD.
Nylon 6 Hsin Tien *Yuan Pao* (yarn)

LIEN YU INDUSTRIAL COMPANY, LTD.
Nylon 6 Lin Tu *Pagoda* (yarn)
Polyester Lin Tu *Pagoda* (yarn)

NAN-YA PLASTIC CO., POLYESTER FIBER DIVISION (part of Formosa Plastics Group)
Polyester Tai Shan *Tairilin* (yarn & staple)

ORIENTAL CHEMICAL FIBER CORPORATION (associated with Far Eastern Textile Ltd.)
Polyester Hsin Chu *Eastlene, Eastlon* (yarn & staple)

PACIFIC ENTERPRISES LTD.
Nylon 6 Tao Yuan *P.E.L.* (yarn)
Polyester Tao Yuan (yarn)

SAN YUAN HSING ENTERPRISE COMPANY
Nylon 6 Kaosiung (monofil - captive)

SHINKONG SYNTHETIC FIBERS CORPORATION
Polyester Tao Yuan *Shinlon* (yarn & staple)

SYNTHETIC FIBER MILLS CORPORATION
Nylon 6 Tao Yuan *Synlon* (yarn)

TA MING FIBERS INDUSTRIAL CORPORATION
Nylon 6 Tao Yuan *Ta Ming Nylon* (yarn)
Polyester Toa Yuan *Poylon* (yarn)

TA SHING CHEMICAL FIBER CO., LTD. (associated with Chung Shing Textile Co., Ltd.)
Nylon 6 Tao Yuan *Tasinlon, Three Gun* (yarn)
Polyester Tao Yuan *Tasinlon* (yarn & staple)

TAINAN SPINNING CO., LTD.
Polyester Tainan *Nanlon* (yarn & staple)

TONG HWA SYNTHETIC FIBER CO., LTD.
Acrylic Chu Pei *Townflower* (staple & tow)

TUNG HO SPINNING WEAVING & DYEING CO., LTD.
Polyester Tainan *Pearlylene* (staple)

TUNTEX FIBER CO., LTD.
Polyester Hsin Su *Tuntex* (yarn)

UNITED SYNTHETIC FIBERS CORPORATION
Polyester Tao Yuan *King Long* (staple)

VANLON FIBERS INDUSTRIAL CORPORATION
Nylon 6 Tao Yuan *Vanlon* (yarn)
Polyester Tao Yuan *Vanlon* (yarn)

YU HO FIBER INDUSTRIAL CORPORATION
Polyester Tao Yuan *Luxlen* (yarn)

YUNG CHIN FIBER CO., LTD.
Nylon 6 Kaohsiung *Hailon* (yarn)

OLEFIN FIBER

CHIA YANG INDUSTRIAL CO., LTD. Hsi-Chih (P monofil)

CHIEN SUN PLASTIC INDUSTRIAL CO., LTD. Hsin-Chu (E & P film)

CHINA FOLEX CORPORATION Shih-Lin (E & P monofil)

TAIWAN (continued)

CHUNG KUANG PLASTIC CO., LTD. Chang-Hua (E & P film)

FULLMARK INDUSTRIAL CO., LTD. Hsin-Chu (E & P monofil)

FUU WON CHEMICAL INDUSTRIAL CO., LTD. Tu-Chen (P yarn)

HSIEH CHIN FISHING NET COMPANY, LTD. Kaohsiung *Hsieh Chin* (E monofil - captive)

HUNG FENG ENTERPRISE CO., LTD. Yang-Mei (P monofil)

IEN YI FIBER INDUSTRIAL CO., LTD. Chi-Do Goble (E monofil)

JUI I CHEMICAL INDUSTRIAL CO., LTD. Tou-Yuan (E & P monofil)

KUO HSIANG ENTERPRISE CO., LTD. Yang-Mei (E & P monofil)

LIEN FU CHEMICAL COMPANY LTD. Tou-Fen (E & P monofil)

MEI LON FIBER CO., LTD. Chang-Hua (E monofil)

PAO TSUNG TAI INDUSTRIAL COMPANY LTD. Tainan (P film)

POLON FIBER INDUSTRIAL CO., LTD. Chung-Li (P monofil)

SAN YANG INDUSTRIAL COMPANY LTD. Nei Hu Hsiang (P film)

TAI YEE CHEMICAL INDUSTRIAL CO., LTD. Chung-Li (E & P monofil)

UNITED FIBER INDUSTRIAL CO., LTD. Chung-Li (E & P monofil)

YAO CHENG PLASTIC CO., LTD. Pan-Chiao (P yarn)

TANZANIA

SUN FLAG TEXTILE KNITWEAR MILLS LTD.
Polyester Arusha (yarn)

THAILAND

ASIA FIBER CO. LTD.
Nylon 6 Samut Prakarn *AFC* (yarn)

HANTEX CORPORATION LTD.
Nylon 6 Mahacha, Samut Sakorn (yarn)

ORIENTAL FIBRE
Polyester Samut Sakorn (yarn)

TEIJIN POLYESTER (THAILAND) LTD.
Polyester Pathumthani, Bangkok *TEIJIN TETORON* (yarn & staple)

THAI MELON POLYESTER CO. LTD.
Polyester Pathumthani, Bangkok (yarn & staple)

THAI RAYON CO., LTD.
Rayon Ang Thong (staple)

TORAY NYLON THAI COMPANY
Nylon 6 Bangkhen, Bangkok *TNT* (yarn & monofil)
Polyester Bangkhen *TNT* (yarn)

TURKEY

AKRILIK KIMYA SANAYII A.S. (AKSA)
Acrylic Yalova *Aksa* (staple)

FILAMENT SENTETIK IPLIK VE ELYAF SANAYII A.S.
Polyester Bursa *Filament* (yarn & staple)

GEMLIK SUNI IPEK VE VISKOZ MAMULLERI SANAYII MÜESSESESI (GEMLIK ARTIFICIAL SILK & VISCOSE PRODUCTS INDUSTRY) (Operated by The Sumerbank)
Rayon Gemlik (staple)

INSA ISTANBUL NAYLON SANAYII A.S.
Nylon 6 Istanbul *Islon* (yarn)
Polyester Istanbul (yarn)

M.N. SABUNCU
Polyester Adana *MNS* (yarn) (idle)

TURKEY (continued)

NERGIS A.S.
Polyester Bursa (yarn)

POLYLEN SENTETIK IPLIK SANAYII A.S.
Polyester Bursa *Polylene* (yarn)

SANCAK TÜL SANAYII LTD., STI.
Polyester Istanbul *Lalelen* (yarn) (idle)

SASA SUNI VE SENTETIK ELYAF SANAYII A.S.
Polyester Adana *Perilon* (yarn & staple)

SENTETIK IPLIK FABRIKALARI, A.S. (SIFAS)
(SYNTHETIC YARN FACTORIES CORPORATION)
Nylon 6 Bursa *SIFAS* (yarn & staple)
Nylon 66 Bursa (yarn)
Polyester Bursa (yarn & staple)

SISAS
Polyester Canakkale* (yarn)

TEKSTIPLIK SANAYII VE TICARET A.S.
Nylon 6 Edime *Dimlon* (yarn)

YALOVA ELYAF VE IPLIK SANAYII VE TICARET A.S.
Acrylic Yalova *Yalova* (staple & tow)
Modacrylic Yalova *Yalova* (staple & tow)

OLEFIN FIBER

BEZCI ELYAF SANAYII A.S. Istanbul

DINARSU ELYAF SANYAYII A.S. Cerkezkoy, Tekirdag (P staple)

ELSAN ELYAF SANAYII VE TICARET A.S. Istanbul (P staple)

HALICIOGLU ELYAF SANAYII A.S. Haskoy, Istanbul (P staple)

SESAS ELYAF SANAYII A.S. Istanbul

GLASS FIBER

CAM ELYAF SANAYII A.S. Cayirova-Gebze (Izmit)

UNION OF SOVIET SOCIALIST REPUBLICS

RAYON PLANTS reported at: Balakovo, Barnaul, Cherkassy (Ukraine), Kalinin, Kamensk, Kiev, Klin, Krasnoyarsk, Leningrad, Mogilev, Ryazan, Saratov, Sokol, Sverdlovsk and Svetlogorsk.

ACETATE PLANTS reported at: Engels, Fergana, Kaunas, Kirovakan and Moscow.

NYLON PLANTS reported at: Barnaul, Chernigov, Daughavpils, Engels, Grodno, Kemerovo, Kiev, Klin, Kursk, Leningrad, Rustavi, Shchekino and Zhitomer.

NONCELLULOSIC FIBER PLANTS reported at: Kustanay (vinyon), Minsk (polyester), Mogilev (polyester), Navoi, Polotsk and Saratov (acrylic+modacrylic).

GLASS FIBER PLANTS reported at: Astrakhan, Kalinin, Khabarovsk, Leningrad, Mingechaur, Moscow, Polotsk, Salavat, Saratov, Sevan and Severodonetsk.

UNITED KINGDOM

ANGLIA FIBRES PLC●
Polyester Hadleigh, Suffolk (monofil)
Polyvinylfluoride Hadleigh *Kynar* (monofil)
Saran Hadleigh *Saran* (monofil)

COURTAULDS FIBRES LTD.
Acrylic Grimsby, Lincolnshire *Courtelle* (staple)
Modacrylic Coventry, Warwickshire *Teklan* (staple)
Rayon Grimsby & Holywell, Clwyd, Wales (staple)
Acetate Coventry, Warwickshire; Spondon, Derbyshire; & Wrexham, Clwyd, Wales (yarn & staple)
Triacetate Coventry & Spondon (yarn & staple)

DEAN DOVE
Polyester (yarn)

UNITED KINGDOM (continued)

DU PONT (U.K.) PLC
Spandex — Maydown, Londonderry, N. Ireland *Lycra* (fused multifil)

HOECHST FIBRE INDUSTRIES UK PLC
Polyester — Limavady, Londonderry, N. Ireland *Trevira* (yarn & monofil)

ICI FIBRES (a division of Imperial Chemical Industries PLC)
Biconstituent — Pontypool, Gwent, Wales *Cambrelle, Floratex, Terram* (melded fabrics)
Nylon 66 — Doncaster, Yorkshire, Gloucester, Gloucestershire, & Pontypool *Bri-Nylon, Counterstat, Pavanne, Tendrelle, Timbrelle* (yarn, staple & tow)
Polyester — Pontypool & Wilton, Yorkshire *Milvelle, Terylene* (yarn, staple & tow)

NYMOFIL PLC
Nylon 6 & 66 — Poulton-le-Fylde, Lancashire (monofil)
Polyester — Poulton-le-Fylde (monofil)

PERI-LUSTA PLC
Nylon 6/66 — Leek, Staffordshire (monofil)

OLEFIN FIBER

AMOCO FABRICS, DIVISION OF AMOCO (U.K.) PLC Consett, Durham (P film)

ANGLIA FIBRES PLC Hadleigh, Suffolk *TPX* (E & P monofil)

BELFAST ROPEWORK CO. PLC Belfast, N. Ireland *Bluebell* (E & P monofil, P yarn, staple & film)

CROMPTON AND BROTHERS (P staple)

DON FIBRES PLC Forfar, Angus, Scotland (P yarn, monofil, staple & film)

F. DRAKE (FIBRES) PLC Colcar, Huddersfield, Yorkshire *Gymlene* (P staple)

FILTRONA TEXTILE PRODUCTS PLC Dundee, Angus, Scotland *Filtrona* (P film); *Filtrona Fibre* (P staple)

FLEMMING'S ROPE & TWINES (WOOLSTON) PLC Warington, Lancashire (P monofil)

GREENVILLE CARPETS PLC Belfast, N. Ireland (P yarn)

HALL'S BARTON ROPERY CO. PLC Hull, Yorkshire (P film and E & P monofil)

THE HAWKINS AND TIPSON GROUP Hailsham, East Sussex (P staple & film)

McCLEERY L'AMIE GROUP PLC Belfast, N. Ireland (P yarn)

NORTHERN IRELAND CARPETS PLC Belfast, N. Ireland (P staple)

PLASTICISERS PLC Drighlington, Yorkshire *Drylene* (E monofil); *Charisma, Duron, Fibrite, Tritor* (P yarn, monofil, film & staple)

POLYOLEFIN FIBRES & ENGINEERING PLC Bradford, Yorkshire *Downspun* (P staple)

OLEFIN FILM FIBER, only

BONAR TEXTILES PLC Dundee, Angus, Scotland

BRIDON FIBRES & PLASTICS PLC Gateshead & Sunderland, Durham & Wallsend, Northumberland *Broplene, Red Star, Viking*

FAIRBAIRN LAWSON PACKAGING PLC Barnsley, Yorkshire

POLYTAPE PLC Dundee, Angus, Scotland *Propafil, Propatape*

ROKO CONTAINERS Nottingham

ROTHES PLASTICS PLC Glenrothes, Fife, Scotland

SMITH & NEPHEW POLYFABRIK PLC Newhey, near Rochdale, Lancashire *Polyweave*

SYNTHETIC FABRICS (SCOTLAND) PLC Forfar, Angus

SYNTHETIC INDUSTRIES (IRELAND) PLC Newry, Down, N. Ireland

TALBOT WEAVING CO. PLC Chorley, Lancashire

TAY TEXTILES Dundee, Angus, Scotland

UNITED KINGDOM (continued)

GLASS FIBER

FIBREGLASS PLC (Subsidiary of Pilkington Brothers PLC) Wrexham, Clwyd, Wales *Fiberglass*

TBA INDUSTRIAL PRODUCTS PLC Camberley, Surrey & Hindley Green, Lancashire

FIBREGLASS-REGINA, a joint venture of FIBREGLASS PLC and the BBA GROUP PLC, is producing textile glass tissue (voile) at Liversedge and St. Helens, Merseyside.

UNITED STATES OF AMERICA

ALBANY INTERNATIONAL - MONOFILAMENT PLANT
Fluoro — Homer, NY *Halar, Kynar, Teflon, Tefzel* (monofil)
Nylon 6, 66 & 612 — Homer (monofil)
Polyester — Homer (monofil - regular & hydrolysis-resistant)

ALLIED CORPORATION, FIBERS DIVISION
Nylon 6 — Columbia, SC & Hopewell, VA *A.C.E., Anso, Caprolan, Nypel* (yarn, monofil & staple)
Polyester — Moncure, NC *A.C.E.* (yarn & monofil)

AMERICAN CYANAMID COMPANY, FIBERS DIVISION
Acrylic — Santa Rosa, FL *Creslan* (staple & tow)

AMERICAN ENKA COMPANY, A PART OF AKZONA, INC.
Nylon 6 — Enka, NC, Central, SC & Lowland, TN *Crepeset, Enka, Enkaloft, Enkalure, Enkasheer, Enkatron, Multisheer, Phase 7, Softalon, Zantrel* (yarn, monofil & staple)
Polyester — Lowland *Encron, Encron 8, Enka, Golden Glow, Golden Touch, Silky Touch, Strialine, Ultra Touch* (yarn & staple)
Rayon — Lowland (staple)

AMERICAN HOECHST CORPORATION, HOECHST FIBERS INDUSTRIES DIVISION
Polyester — Spartanburg, SC *Trevira* (yarn, staple, monofil & spunbond)
PVC — Delaware City, DE (film)

AMETEK INC., SPECIAL FILAMENTS DIVISION●
Nylon 6, 66, 612 & 11 — Odenton, MD (monofil)
Polyester — Odenton (monofil)
Saran — Odenton (monofil)

AVTEX FIBERS INC.●
Acetate — Meadville, PA (yarn)
Polyester — Lewistown, PA *Avlin* (yarn)
Rayon — Front Royal, VA (ind yarn & staple)
Vinyon — Meadville (staple)

BADISCHE CORPORATION
Acrylic — Williamsburg, VA *Zefran* (staple)
Nylon 6 — Anderson, SC *Zeftron* (yarn & staple)

BERKLEY & CO. INC.●
Nylon 6 — Spirit Lake, IA (monofil)

CAMAC CORPORATION●
Nylon 6 — Bristol, VA *Camalon* (yarn)

CELANESE FIBER OPERATIONS, A DIVISION OF CELANESE CORPORATION (includes former Fiber Industries plants)
Acetate — Rock Hill, SC (Celriver) & Narrows, VA (Celco) (yarn, staple & tow)
Polyester — Fayetteville, Salisbury & Shelby, NC and Darlington & Greenville, SC *Angelette, Ceylon, Comfort Fiber, ESP, Fortrel, Loftguard, PolarGuard, Serene, Superba* (yarn, staple, tow & fiberfill)
Triacetate — Rock Hill *Arnel* (yarn, staple & tow)
PBI — Rock Hill (staple)

CORTLAND LINE COMPANY
Nylon 6 — Cortland, NY (monofil - captive)

U.S.A. (continued)

COURTAULDS NORTH AMERICA INC.

Nylon 6 — Le Moyne, Mobile County, AL *Courtaulds, Shareen* (yarn & monofil)

Rayon — Le Moyne (staple)

E. I. DU PONT DE NEMOURS & COMPANY (INC.)●

POLYMER PRODUCTS DEPARTMENT

Nylon 6, 66, 612 & Polyester — Parkersburg, WV *Dacron, Dymetrol, Tynex, Vylor* (monofil of 50 denier & coarser)

TEXTILE FIBERS DEPARTMENT●

Acrylic — Camden, SC & Waynesboro, VA *Orlon* (staple & tow)

Aramid — Richmond, VA *Kevlar* (yarn), *Nomex* (yarn, staple & tow)

Fluoro — Richmond *Teflon* TFE- & FEP-fluorocarbon fiber (yarn, monofil, staple, tow & flock)

Nylon 66 — Seaford, DE, Camden, SC, Chattanooga, TN and Martinsville, Richmond & Waynesboro, VA *Antron, Cantrece, Cordura, Du Pont, Hyten* (yarn, monofil, staple & tow)

Nylon-Other — Chattanooga (yarn)

Polyester — Kinston & Wilmington, NC, Camden & Charleston, SC and Chattanooga & Old Hickory, TN *Dacron, Hollofil* (yarn, staple, tow & fiberfill), *Reemay* (spunbonded), *Sontara* (spunlaced)

Spandex — Waynesboro *Lycra* (fused multifil or coalesced monofil)

EASTMAN KODAK COMPANY

CAROLINA EASTMAN COMPANY

Polyester — Columbia, SC *Kodel* (yarn & staple)

TENNESSEE EASTMAN COMPANY

Acetate — Kingsport, TN (yarn)

Polyester — Kingsport *Kodel* (yarn & staple)

FIBER INDUSTRIES, INC. - See Celanese Fiber Operations

FIRESTONE FIBERS & TEXTILES COMPANY, DIVISION OF FIRESTONE TIRE & RUBBER COMPANY

Polyester — Hopewell, VA (yarn)

FOSS MANUFACTURING CO., INC

Polyester — Haverhill, MA (staple)

GLOBE MANUFACTURING CO.

Spandex — Fall River, MA & Gastonia, NC *Cleerspan, DC-100, DC-700, Glospan* (fused multifil)

THE GOODYEAR TIRE & RUBBER COMPANY, CHEMICAL DIVISION

Polyester — Scottsboro, AL & Point Pleasant, WV (yarn - captive)

GUILFORD MILLS, GAINESVILLE DIVISION

Nylon 6 — Gainesville, GA (yarn & monofil - captive)

HANOVER MILLS, INCORPORATED (subsidiary of Falk Fibers & Fabrics, Inc.)

Nylon 6 — Yanceyville, NC *Hanover* (yarn & monofil)

JOHNSON FILAMENTS, INC. (subsidiary of JWI Ltd.)

Nylon 6/66 — Williston, VT (monofil)

Polyester — Williston (monofil)

KAYSER-ROTH CORPORATION, YARN PROCESSING DIVISION

Nylon 66 — Creedmoor, NC (yarn - captive)

MKS, INC.

Polyester — Elizabethton, TN (staple)

MONOFILAMENTS, INC.

Nylon 6/66 — Waynesboro, VA (monofil)

Polycarbonate — Waynesboro (monofil)

Polyester — Waynesboro (monofil)

MONSANTO COMPANY

MONSANTO FIBERS AND INTERMEDIATES CO.

Acrylic — Decatur, AL *Acrilan, Bi-Loft, Fi-Lana, Pa-Qel, Remember, So-Lara* (staple & tow)

Modacrylic — Decatur *SEF* (staple & tow)

Nylon 66 — Pensacola, FL & Greenwood, SC *Blue C, Cadon, Cumuloft, Ultron, Ultron Z* (yarn, monofil & staple), *Cerex* (spunbonded)

MONSANTO ENGINEERED PRODUCTS DIVISION

Nylon 66 — Dalton, GA *AstroTurf* (recreational & landscaping surfaces)

U.S.A. (continued)

NORTH AMERICAN RAYON CORPORATION

Rayon — Elizabethton, TN (ind & reg yarn and tow)

SHAKESPEARE COMPANY, MONOFILAMENT DIVISION

Nylon 6/66 — Columbia, SC *S-3, Wonderthread, Whispertouch* (monofil)

Polyester — Columbia *Shakespeare Wonderthread* (monofil)

STAR FIBERS, INC.

Nylon 6 — Edgefield, SC *Starbrite* (staple)

TOLARAM FIBERS, INC. (includes former Omega Yarns facility)

Polyester — Ansonville & Asheboro, NC (yarn)

UNIVERSAL POLYMER PRODUCTS CORPORATION (subsidiary of Falk Fibers & Fabrics, Inc.)

Polyester — Fuquay-Varina, NC (yarn & monofil)

WELLMAN, INC., MAN-MADE FIBER DIVISION

Nylon 6 & 66 — Johnsonville, SC *Wellon, Wellstrand* (staple, tow & tops)

Polyester — Johnsonville *Wellene* (staple, tow & tops)

OLEFIN FIBER

ACS INDUSTRIES, INC. Woonsocket, RI (P yarn)

AMERICAN MANUFACTURING COMPANY

HONESDALE ROPE DIVISION Honesdale, PA (E & P monofil & film)

LAFAYETTE ROPE DIVISION Lafayette, LA *Amco, American, Bondtie, Floterope* (E & P monofil)

AMETEK INC., SPECIAL FILAMENTS DIVISION Odenton, MD (E & P monofil)

AMOCO FABRICS COMPANY, PATCHOGUE PLYMOUTH DIVISION Andalusia & Roanoke, AL, Bainbridge, Hazlehurst & Nashville, GA & Afton, VA *Marquesa Lana, Patlon, Patlon Plus* (P yarn, monofil, film & staple)

ARLIN MFG. CO., INC. Lowell, MA (P film)

ARMSTRONG WORLD INDUSTRIES, INC. Charlotte, NC (P film-captive)

AVTEX FIBERS INC. Front Royal, VA* (P staple)

BEAULIEU, INC. Dalton, GA (P yarn)

BEMIS COMPANY, INC. St. Louis, MO (P film)

BERKLEY & CO. INC. Spirit Lake, IA (E & P monofil - captive)

BLUE MOUNTAIN EXTRUSIONS Anniston, AL *Gold Medal, Poly Autotwine, Poly Macrame, Polylasting, TY-EZ Polytape, Tylon, Tytite* (E & P film)

BRIDON CORDAGE INC. Albert Lea, MN (P film)

BURLINGTON, INC. Greensboro, NC (P yarn)

CAMAC CORPORATION Bristol, VA (P yarn)

CAVALIER CARPET CO. Dalton, GA (P yarn)

CHASE BAG COMPANY Orange, CA & New Orleans, LA (P film)

COLOR TREND, INC Dalton, GA (P yarn)

COLUMBIAN ROPE COMPANY Guntown, MS *Manipro, Polypro 6* (E & P monofil & film)

CONCORDE FIBERS, INC. Jamestown, SC (P yarn)

CROWE ROPE COMPANY Warren, ME *Crowelon, Fibrilabod* (P monofil & film)

CROWN ZELLERBACH CORPORATION, NONWOVEN FABRICS DIVISION Washougal, WA *Fibretex* (P spunbonded)

CUTLASS CARPET CO. Dalton, GA (P yarn)

DIAMOND CARPET CO. Chatsworth, GA (P yarn)

E. I. DU PONT DE NEMOURS & COMPANY (INC.), TEXTILE FIBERS DEPT. Old Hickory, TN & Richmond, VA *Typar* (P spunbonded); *Tyvek* (E spunbonded)

U.S.A.

OLEFIN FIBER (continued)

ELIZABETH WEBBING MILLS CO., INC. Central Falls, RI (P film)

ENSIGN-BICKFORD INDUSTRIES, INC., FILM FIBERS DIVISION Simsbury, CT (P film)

EXXON CHEMICAL AMERICAS, INDUSTRIAL TEXTILES DIVISION Kingman, KS & Summerville, SC (P monofil & film)

FNT INDUSTRIES INC. Menominee, MI (E monofil)

FIBERS & FABRICS OF GEORGIA, INC. (subsidiary of Georgia Synthetics, Inc.) Elberton, GA (E & P yarn, monofil & film)

FIBRES SOUTH, INC. Trussville, AL *Trustite, Tirite, Polystar* (P film & E & P monofil)

FIBRON CORPORATION OF TENNESSEE Chattanooga, TN *Fibri-Cord, Fibri-Knit, Fibrilawn, Fibrilon* (P film)

FILAMENT FIBER TECHNOLOGY INCORPORATED Lakewood, NJ (P yarn)

FOSS MANUFACTURING CO., INC. Haverhill, MA (P staple)

GENERAL FIBERS & FABRICS, INC. LaGrange, GA (P film)

GEORGIA SYNTHETICS, INC. Elberton, GA (E & P yarn, monofil & film)

GLADDING CORP., CORDAGE DIVISION South Otselic, NY (P monofil)

H & A INDUSTRIES, INC. Xenia, OH (P film)

HERCULES INCORPORATED, FIBERS MARKETING DIVISION Oxford, GA *Herculon* (P yarn & staple)

INTEGRATED PRODUCTS, INC. Rome, GA (P staple)

J & J INDUSTRIES Dalton, GA (P yarn)

KELLER INDUSTRIES, INC. Swainsboro, GA (P monofil - captive)

KIMBERLY-CLARK CORPORATION Corinth, MS, Balfour, NC & Neenah, WI *Accord, Duraguard, Evolution* (P spunbonded); *Cyclean* (P spunbonded/meltblown laminate); *Evolution II, Safeguard CPF* (P spunbonded meltblown & P meltblown)

LAMBETH CORPORATION New Bedford, MA *Lambeth* (E & P monofil)

LAWRENCE HOSE COMPANY (a Consolidated Foods Company) Burlington, NC (E monofil - captive)

LORETEX, DIVISION OF OIVIND LORENTZEN, INC. Guilderland Center, NY (E film - captive)

MIRAFI, INC. (subsidiary of Dominion Textiles) Moultrie, GA (P film - captive)

NSI, INC. Soperton, GA (P film - captive)

THE OSTERNECK COMPANY Lumberton, NC (P film)

PHILLIPS FIBERS CORPORATION (subsidiary of Phillips Petroleum Company) Rocky Mount, NC & Spartanburg, SC *Marvess* (P yarn, staple & tow)

POLYLOOM CORPORATION OF AMERICA Dayton, TN *Polyloom* (P film)

SARLON INDUSTRIES, INC. Miami, FL (P monofil)

SHUFORD MILLS, INC. Hickory, NC (P film)

SOUTHERN WEAVING, INC. Greenville, SC (P yarn)

SUNSHINE CORDAGE CORPORATION Miami, FL *Cala-Line, Oletex, Poncar, Sunshine, Sunylon, Sunypool* (E & P monofil)

SYNTHETIC INDUSTRIES Chickamauga, GA (P film - captive)

SYNTHETIC INDUSTRIES (TEXAS), INC. Houston, TX (P film)

U.S.A.

OLEFIN FIBER (continued)

TUBBS CORDAGE COMPANY Orange, CA *Loktite* (P monofil & film)

TWINE PRODUCTS CORPORATION New Orleans, LA (P film)

UNITED STATES ROPE COMPANY Menlo Park, CA (P monofil)

WALL INDUSTRIES, INC. Beverly, NJ (E & P monofil)

WALTRICH PLASTIC CORPORATION Tennent, NJ (P monofil)

WAYN-TEX, INC. Waynesboro, VA *Beamette, Waynfil* (E & P yarn & monofil & P film)

WELLINGTON PURITAN MILLS (MONTAIR DIV.) Pilot Mountain, NC *Pur-Ty, Welltite* (E & P monofil and film)

WELLINGTON SYNTHETIC FIBRES, INC. Leesville & Summerville, SC (P yarn and monofil)

TEXTILE PRODUCTS FROM OLEFIN

CONWED CORP. *Conwed Plastic Netting* (P embossed film for netting)

E. I. DU PONT DE NEMOURS & COMPANY (INC.) (E & P embossed film for netting)

HERCULES INCORPORATED, POLYMERS DIVISION *Delnet* (E embossed film for netting)

NALLE INC. (P embossed film for netting)

RIEGEL PRODUCTS CORPORATION *Polyweb* (P meltblown)

THE 3M COMPANY (P spunbonded)

GLASS FIBER

CERTAINTEED CORPORATION
FIBER GLASS REINFORCEMENTS DIVISION Wichita Falls, TX *R099, SatinGlass, Stichmat, Unifilo* (roving, woven roving, mat, chopped strand & combination product)

F.G.I. FIBERS, INC. Amsterdam, NY (roving & chopped)

LUNDY TECHNICAL CENTER Pompano Beach, FL *RoMHOglas* (metallized glass fiber roving, strand & mat)

MANVILLE CORPORATION Denver, CO, Waterville, OH & Etowah, TN *Chop-Pak* (chopped strand, mat & sliver)

NICOFIBERS INC. Shawnee, OH *Conformat, Consurmat, Surmat* (mat)

OMNI FIBER GLASS CORPORATION Chino, CA (roving, chopped & milled)

OWENS-CORNING FIBERGLAS CORPORATION Huntingdon, PA, Aiken & Anderson, SC, Jackson, TN & Amarillo, TX *Activa, Araton, Beta, Bi-Ply, Fiberglas, S-Glass, S-2 Glass* (yarn, roving, woven roving, mat, chopped & milled)

PPG INDUSTRIES, INC., FIBER GLASS Lexington & Shelby, NC *Azdel, Combomat, Hybon, L.E.X., Texo* (yarn, roving, woven roving, mat, chopped strand, rubber reinforcements & thermoplastic sheets)

REICHHOLD CHEMICALS, INC.
GLASS FIBERS DIVISION Irwindale, CA (roving & chopped), Nashville, TN (roving, woven roving, mat, chopped, milled & flat yarns)

SUPERIOR GLASS FIBERS, INC. Bremen, OH (mat)

URUGUAY

HILADOS SINTETICOS S.A. (HISISA)
Nylon 66 Estacion Manga, Montevideo *Hisilon* (yarn)

POLIMEROS URUGUAYOS S.A.
Polyester San José, San José (staple)

SINTETICOS SLOWAK S.A.
Nylon 6 Montevideo *Crofil* (yarn & monofil)
Nylon 66 Montevideo *Hisilon* (yarn)
Polyester Montevideo *Terpol* (yarn)

SUDAMTEX del URUGUAY S.A.
Acetate Colonia (yarn)

URUGUAY

OLEFIN FIBER (continued)

ARYN S.A. Montevideo (E monofil)

CINCA S.A. Montevideo (E film)

ELABORADORA DE ARPILLERA SINTETICA S.A. (E film)

UDINE S.A. (E monofil)

VENEZUELA

C.A. INVERSIONES ARAGUA
Nylon 6 Maracay *Sudalon* (yarn)

GOMELAST C.A.
Spandex Caracas *Spandaven* (yarn)

HILADOS FLEXILON
Nylon 6 Caracas (yarn)
Polyester Caracas (yarn)

MANTEX, C.A.
Acetate Valencia (yarn)
Polyester Maracay, Valencia *Fortrel* (yarn & staple)

SUDAMTEX DE VENEZUELA, C.A.
Polyester Maracay (yarn & staple)

YUGOSLAVIA

HEMTEKS
Polyester Skopje, Macedonia *Maklen* (yarn & staple)

INCEL FABRIKA CELULOZE I VISKOZE
Polyester Banja Luka, Bosna i Hercegovina *Belira* (yarn)
Rayon Banja Luka (staple)

INDUSTRIJA SINTETICKIK VLAKANA (PROGRES)
Nylon 6 Prizren, Kosovo Mitohijan *Supralon* (yarn)
Polyester Istok, Kosovo Mitohijan & Prizren *Prizrenit* (yarn)

KEMICNA TOVARNA MOSTE
Nylon 6 Ljubljana, Slovenia *Yulon* (yarn)

ORGANSKO HEMIJSKA INDUSTRIJA SKOPJE (OHIS)
Acrylic Skopje, Macedonia *Makrolan, Malon* (staple)

TEKSTILNA INDUSTRIYA "ZELE VELJKOVIC"
Nylon 6 Leskovac* (yarn & staple)

VARAZDINSKI TEKSTILNI KOMBINAT (VARTEKS)
Polyester Varazdin (staple)

VISKOZA
Rayon Loznica, Serbia (ind & reg yarn & staple)

OLEFIN FIBER

HEMIJASKA INDUSTRIJA U OSNIVANJU Belgrade (P staple)

GLASS FIBER

GOSTIVAR STAKLARA
Staklara (roving & mat)

WORLD MAN-MADE FIBER PRODUCER AFFILIATIONS & PERCENTAGE OF CAPITAL OWNERSHIP

Licensing and royalty agreements are not taken into account. The ownership of companies other than man-made fiber producers is not listed, e.g., weaving mills, chemical producers, etc.

For each country, the percentage following the first-named producer is the portion owned by the captioned company; the remainder of the entry shows other ownership. For example, Akzo N.V. owns 25% of Cyanenka of Spain, while American Cyanamid owns 40% and La Seda de Barcelona owns 35%. Also note that Akzo owns 57% of La Seda de Barcelona.

AKZO N.V. (NETHERLANDS)

Austria	Enka-Austria 93%
Brazil	Companhia Bahiana de Fibras 45%; others 55%; Polyenka 51%; others 49%
Colombia	Enka de Colombia 48%; others 52%
Ecuador	Enkador 48%; others 52%
Germany	Enka 97%; public 3%
India	Century Enka 39%; others 61%
Ireland	See British Enkalon under United Kingdom below.
Mexico	Fibras Quimicas 40%; Alfa-group 60%
Netherlands	Enka 100% Silenka 33.33%; PPG Industries 33.33%; others 33.33%
Spain	Cyanenka 25%; American Cyanamid 40%; La Seda 35%; La Seda 57%; others 43%
U.K.	British Enkalon 84%; public 16%
U.S.A.	American Enka 100%

AMERICAN CYANAMID COMPANY (U.S.A.)

Spain	Cyanenka 40%; Akzo N.V. 25%; La Seda 35%
U.S.A.	Fibers Division 100%

AMOCO CHEMICALS CORPORATION (U.S.A.)

Australia	Amoco Fabrics Co., Patchogue Plymouth Div. 100%
Canada	Amoco Fabrics Co. 100%
Germany, F.R.	Amoco Fabrics Co., Patchogue Plymouth Div. 100%
U.K.	Amoco Fabrics 100%
U.S.A.	Amoco Fabrics Co., Patchogue Plymouth Div. 100%

BASF AMERICA CORPORATION (U.S.A.)

BASF America owns 100% of Badische Corp. (U.S.A.), which in turn owns 100% of Badische Canada Limited.

ASAHI CHEMICAL INDUSTRY CO. LTD. (JAPAN)

India	Baroda Rayon Corp. 1%; local interests 89%; others 10%
Indonesia	P.T. Indonesia Asahi Chemical 69%; others 30%; local interests 1%
Ireland	Asahi Synthetic Fibres (Ireland) 85%; others 15%
Japan	Asahi Chemical 100%
Korea, Rep.	Tong Yang Polyester 50%; Tong Yang Nylon 50%

BAYER A.G. (WEST GERMANY)

Belgium	N.V. Bayer 100%
Germany, F.R.	Bayer A.G. 100% Faserwerke Lingen G.m.b.H. 100%
Iran	Sherkat Sahami Aliaf 50%; Aftab Shargh & others 50%
Peru	Bayer Industrial S.A. 60%

CELANESE CORPORATION (U.S.A.)

Belgium	Celanese S.A. 100%
Brazil	Celanese do Brasil 100% Celanese do Brasil Nordeste 100%
Canada	Celanese Canada Inc. 56% Celanese Canada (Millhaven) Inc. 100%
Mexico	Celanese Mexicana 40%; public 60%
Peru	Rayon y Celanese Peruana 33%
U.S.A.	Celanese Fibers Operations 100%

COURTAULDS, PLC (U.K.)

Canada	Courtaulds (Canada) Inc. 100%
France	Courtaulds S.A. 100%
Ireland	Lirelle (Ireland) Ltd. 100%
Italy	Fin Novaceta S.p.A. 50%; SNIA 50%
Spain	INACSA 12%; public 88%
U.K.	Courtaulds Acetate PLC 100%
	Courtaulds, PLC 100%
U.S.A.	Courtaulds North America Inc. 100%

E. I. DU PONT DE NEMOURS & COMPANY (U.S.A.)

Argentina	Ducilo 83%; Bunge & Born 17%
Brazil	Du Pont do Brasil 100%
Canada	Du Pont Canada 75%; public 25%
Germany, F.R.	Du Pont de Nemours (Deutschland) 100%
Japan	Toyo Products 50%; Toray Industries 50%
Luxembourg	Du Pont Fibres 100%
Mexico	Nylon de Mexico 40%; Alfa-group 51%; public 9%
Netherlands	Du Pont de Nemours (Nederland) 100%
U.K.	Du Pont (U.K.) 100%
U.S.A.	Textile Fibers Department 100%
	Polymer Products Department 100%

FIRESTONE TIRE & RUBBER COMPANY (U.S.A.)

Canada	Firestone Textiles Co.100%
U.S.A.	Firestone Fibers & Textiles 100%

HARBOUR GROUP LTD. (U.S.A.)

U.K.	Synthetic Industries (Ireland) PLC 100%
U.S.A.	Fibron Corp. of Tennessee 100%
	Synthetic Industries, Inc. 100%
	Synthetic Industries (Texas), Inc. 100%

HERCULES INCORPORATED (U.S.A.)

Italy	HIMONT Fibers 50%; Montedison 50%
U.S.A.	Hercules 100%

HOECHST A.G. (WEST GERMANY)

Austria	Austria Faserwerke: Hoechst Austria 51%; Lenzing 49%
Brazil	Cia. Brasileira de Sintéticos 60%
Germany, F.R.	Hoechst 100%
	Zehlendorf 91%; Others 9%
South Africa	Hoechst South Africa 100%
U.K.	Hoechst Fibre Industries 100%
U.S.A.	American Hoechst 100%

KURARAY CO., LTD. (JAPAN)

Indonesia	Kuma Fiber 40%; others 60%
Japan	Kuraray 100%

IMPERIAL CHEMICAL INDUSTRIES LIMITED (U.K.)

ICI owns 62% of ICI Australia Ltd., which in turn owns Fibremakers Ltd. of Australia.

Australia	Fibremakers Ltd. - 100% ICI Australia
Germany, F.R.	ICI Europa Fibres G.m.b.H. 100%
India	Chemicals & Fibres of India Ltd. 55%
Pakistan	ICI Pakistan Manufacturers 70%
Portugal	Finicisa-Fibras 50%; Francisco Fino Ltd. 50%
South Africa	S.A. Nylon Spinners (through AECI Ltd.) 40%
Spain	Nurel S.A. 50%; local interests 50%
U.K.	ICI Fibres 100%

MITSUBISHI RAYON (JAPAN)

Japan	Mitsubishi Acetate 100%
	Mitsubishi Rayon 100%
Portugal	FISIPE 4%; Mitsubishi Corp. 9%; Quimigal 87%
Taiwan	Tong Hwa 19%; Mitsubishi Corp. 12%; others 69%

MONTEFIBRE S.p.A. (ITALY)

France	Montefibre France 100%
Italy	Montefibre 30%; Snia Fibre 50%; Fibra de Tirso 50%; Anicfibre 50%; Merak 100%; Neofil 50%; Hercules (U.S.A.) 50%; Societá Industriale Cremonese 50%
Malta	Montefibre Malta 99.9%
Spain	Montefibre Hispania 70%; others 30%

OWENS-CORNING FIBERGLAS CORPORATION (U.S.A.)

Belgium	Owens-Corning Fiberglas Europe 100%
Brazil	OCFIBRAS 100%
Canada	Fiberglas Canada 49%; Duplate Canada 49%; local interests 2%
France	Owens-Corning Fiberglas Europe 100%
Japan	Asahi Fiber Glass 28%; Asahi Glass Co., Ltd. 72%
Mexico	Vitro-Fibras 40%; Vitro Group 60%
Norway	Owens-Corning Fiberglas Europe 100%
Sweden	Scandinavian Glasfiber 40%; Allmanna Svenska Electriska 60%
U.S.A.	Owens-Corning Fiberglas 100%

PPG INDUSTRIES (U.S.A.)

Netherlands	Silenka 33.33%; Akzo N.V. 33.33%; others 33.33%
U.S.A.	Fiber Glass Division 100%

PILKINGTON BROTHERS (U.K.)

Argentina	VASA 99.7%; Glaverbel/Boussois/local interests 0.3%
India	Fibreglass Pilkington 50%, plus 1 share; Indian interests 50%, less 1 share
South Africa	Fibreglass South Africa 24.5%; Owens-Corning Fiberglas (U.S.A.) 24.5%; Plate Glass & Shatterprufe Industries Ltd. 51%
U.K.	Fibreglass PLC 100%

RHÔNE-POULENC S.A. (FRANCE)

Argentina	Rhodia Argentina Química e Têxteis 100%
Brazil	Rhodia Industrias Químicas e Têxteis 100%; Rhodia Nordeste 99%
France	Rhône-Poulenc-Textile 99.9%
Germany, F.R.	Deutsche Rhodiaceta 100%
Spain	SAFA 60%
Switzerland	Viscosuisse (through Holva AG) 87%
Thailand	Thai Melon Polyester 40%; others 60%

SAINT-GOBAIN (FRANCE)

France	Saint-Gobain Industries 100%
Germany, F.R.	Gevetex-Textilglas 100%
Italy	Vetrotex Italia 100%
Spain	Fibras Minerales 69%; others 31%
U.S.A.	CertainTeed Corp. 54%; others 46%

SNIA FIBRE (ITALY)

Argentina	SNIAFA (through its Luxembourg subsidiary, Sapina) 23%
Brazil	Fiacão Brasileira de Rayon 96% (through Sapina)
France	Ets. Nysam 100%
Greece	Vomvicryl 15% (through Sapina)
India	Baroda Rayon 9% (through Sapina); South India Viscose 24% (through Sapina)
Ireland	Snia Ireland 80%
Italy	Snia Fibre 100%; Novaceta 50%, Courtaulds (U.K.) 50%
Spain	SNIACE 25% (through Sapina)

TEIJIN LTD. (JAPAN)

Indonesia	P.T. Tifico 65.8%; Toyo Menka 16.5%; local interests 17.7%
Japan	Teijin 100%
	Teijin Acetate 100%
Korea, Rep.	Sunkyung Fibres 11%; local interests 89%
Taiwan	Hualon-Teijin 6%; local interests 94%
Thailand	Teijin Polyester 45%; local interests 55%

TORAY INDUSTRIES (JAPAN)

Brazil	Polynor is owned 16% by Matoray, which in turn is owned 35% by Toray and 65% by IRF Matarazzo.
Indonesia	P.T. Indonesia Toray Synthetics 59%; others 41%
Japan	Toray Industries 100%; Toray-Monofilament 100%; Toyo Products 50%, Du Pont 50%
Korea, Rep.	Cheil Synthetic Textiles 23.5%; Mitsui 6%; local interests 70.5%; Kolon Industries 19.8%; others 80.2%
Malaysia	Penfibre 90%; Textile Alliance 10%
Philippines	Philippine Polyamide 16.5%; Itoman 12.5%; Toyo Menka 11%; local interests 60%
Taiwan	Shin Kong 6.4%; Mitsubishi Corp. 4.5%; local interests 89.1%
Thailand	Toray Nylon Thai 30%; Mitsui 19%; local interests 51%

TUBBS CORDAGE COMPANY (U.S.A.)

Philippines	Manila Cordage 40%
U.S.A.	Tubbs Cordage 100%

WELLMAN, INC. (U.S.A.)

Ireland	Wellman International Ltd. 60%; British Enkalon 40%
U.S.A.	Man-Made Fiber Division 100%

OLEFIN DATA PRESENTATION

As has been the practice with past June issues, all world olefin data are presented separately from the other noncellulosic fibers. This method of presentation is necessitated by a lack of complete olefin data worldwide.

Two examples illustrate the problem:

A. Though the U.S. olefin production data published regularly in the ***Organon*** include yarn, monofil, staple, film fiber and spunbonded polypropylene, published Italian and Japanese olefin data show the production of yarn+monofilaments and staple+tow but no data on production of film fiber, such as is used in sacks, fishing nets and carpet backing.

B. The published man-made fiber data of many other countries show little or no olefin fiber production at all (e.g., France, West Germany and the United Kingdom).

Due to the difficulties given above, the noncellulosic data except olefin are presented on pages 84-87.

The olefin data for most countries appear on page 93. These data consist of (a) the "official" country data published by a government, an association or other statistical agency, and (b) an estimate of the olefin fiber, mainly slit and split film fiber, believed to have been produced in the country. No attempt is made to strike a world total because the incomplete data of a number of countries, particularly in Latin America, Eastern Europe and Africa, Asia and Oceania, prohibit such a tabulation.

TABLE 10: NUMBER OF MAN-MADE FIBER PRODUCING PLANTS (EXCEPT OLEFIN)*

COUNTRY & REGION	CELL.		NONCELLULOSIC					TEX-TILE GLASS	GRAND TOTAL
	ACE-TATE[a]	RAYON	ACRY-LIC[b]	NY-LON[c]	POLY-ESTER	OTH-ER[d]	TOTAL		
WEST EUROPE									
AUSTRIA		2			1	1	2		4
BELGIUM/LUX	1	1		3	1		4	2	8
FINLAND		1		1			1	1	3
FRANCE		3	2	5	2	1	10	2	15
GERMANY F.R.	1	3	3	11	11	4	29	3	36
GREECE		1	1	2	3		6		7
IRELAND (EIRE)			1	1	2		4		4
ITALY/MALTA	2	3	5	16	8	1	30	2	37
NETHERLANDS		1		2	1	1	4	1	6
NORWAY								1	1
PORTUGAL		2	1	1	1		3	1	6
SPAIN	1	2	2	7	5		14	1	18
SWEDEN		1		1			1	1	3
SWITZERLAND				4	3		7		7
TURKEY		1	2	3	8		13	1	15
UNITED KINGDOM	3	2	2	5	6	3	16	4	25
TOTAL W. EUROPE	**8**	**23**	**19**	**62**	**52**	**11**	**144**	**20**	**195**
EAST EUROPE									
BULGARIA		1	1	1	1		3		4
CZECHOSLOVAKIA		5		3	2		5	2	12
GERMAN D.R.		8	2	3	3	1	9	1	18
HUNGARY		1	1	1			2		3
POLAND		5	1	1	2	2	6	2	13
ROMANIA		2	1	1	2		4		6
YUGOSLAVIA		2	1	2	5		8	1	11
TOTAL E. EUROPE		**24**	**7**	**12**	**15**	**3**	**37**	**6**	**67**
AMERICAS									
ARGENTINA	1	1	1	6	5	1	13	1	16
BOLIVIA			1				1		1
BRAZIL	1	4	2	18	11	1	32	1	38
CANADA	1	1		3	2	1	6	1	9
CHILE		2		2	3		5		7
COLOMBIA	1			3	4		7		8
COSTA RICA					1		1		1
CUBA		1							1
ECUADOR					3		3		3
GUATEMALA				1			1		1
MEXICO	1	2	4	7	9	2	22	1	26
PERU	1		1	4	4		9		10
U.S.A.	4	4	6	29	32	9	76	18	102
URUGUAY	1			2	2		4		5
VENEZUELA	1			2	3	1	6		7
TOTAL AMERICAS	**12**	**15**	**15**	**77**	**79**	**15**	**186**	**22**	**235**
AFRICA, ASIA & OCEANIA									
AUSTRALIA				2	2	1	5	1	6
BANGLADESH		2		1			1		3
EGYPT		2		1	2		3		5
INDIA	1	12	2	10	17		29	2	44
INDONESIA		4		7	5		12		16
IRAN			1	2	1		4		4
IRAQ		1							1
ISRAEL			1	1	1		3		3
JAPAN	2	13	7	12	21	17	57	14	86
KENYA				1	4		5		5
KOREA, REP. OF	1	1	2	7	11	1	21		23
MALAYSIA				1	1		2		2
NIGERIA					1		1		1
PAKISTAN	1			3	9		12		13
PHILIPPINES				3	3		6		6
SOUTH AFRICA				1	5		6		6
SRI LANKA				1			1		1
TAIWAN		2	3	14	17		34		36
TANZANIA					1		1		1
THAILAND		1		3	4		7		8
TOTAL A,A & O	**5**	**38**	**16**	**70**	**105**	**19**	**210**	**17**	**270**
WORLD TOTAL*	**25**	**100**	**57**	**221**	**251**	**48**	**577**	**65**	**767**

* Data for People's Republic of China, North Korea & U.S.S.R. are not included here.

a. Acetate includes triacetate.

b. Acrylic includes modacrylic.

c. Nylon includes aramid.

d. Includes 1 azlon, 2 biconstituent, 4 fluorocarbon, 1 PBI, 2 PVC, 1 polycarbonate, 1 polychlal, 1 polyesteramide, 1 promix, 6 saran, 18 spandex or elastomer, 4 vinal and 6 vinyon plants, for a total of 48 plants producing these miscellaneous fibers.

TABLE 11: FILAMENT YARN DOMESTIC SHIPMENTS[a]

MILLION POUNDS

ITEM		ANNUAL DATA 1980	1981	1982	1983	QUARTERLY DATA 1983 1ST Q	1983 2ND Q	1983 3RD Q	1983 4TH Q	1984 1ST Q	1984 2ND Q	1984 3RD Q	1984 4TH Q
(A) ACETATE		(N) NYLON *				(P) POLYESTER				(O) OLEFIN			
HOSIERY[b]	N	106.3	107.0	92.3	104.3	25.4	26.3	26.0	26.6	27.8			
OTHER CIRCULAR KNIT[c]	N	56.6	48.2	25.7	24.5	5.3	6.0	6.0	7.2	4.2			
	P	495.7	345.6	228.4	293.7	77.2	79.3	67.5	69.7	55.7			
	A	3.2	3.6	1.6	2.1	0.7	0.5	0.6	0.3	0.4			
FLAT KNIT	A	144.9	98.7	71.7	79.1	18.0	23.6	20.1	17.4	18.1			
	N	176.3	163.2	130.8	162.2	39.0	42.4	39.8	41.0	40.4			
	P	83.8	98.4	87.0	116.6	22.4	26.2	31.3	36.7	32.7			
CARPET FACE	N	714.5	633.6	559.5	734.6	143.9	196.4	196.4	197.9	191.1			
	O	89.5	89.5	90.0	131.2	29.8	34.0	33.1	34.3	29.9			
CARPET BACKING[d]	O	197.8	195.3	184.7	198.8	46.1	54.1	53.7	44.9	48.1			
OTHER BROAD WOVEN[e]	A	110.5	110.7	88.8	113.6	24.2	29.2	29.7	30.5	29.8			
	N	94.3	89.2	82.2	83.6	21.3	22.3	19.3	20.7	20.5			
	P	405.5	440.2	367.0	489.9	107.0	138.6	118.1	126.2	104.8			
	O	186.3	200.7	172.5	217.1	48.9	57.2	58.1	52.9	51.2			
NARROW WOVEN[f]	A	8.7	8.6	2.9	1.7	0.9	0.2	0.4	0.2	0.1			
	N	31.4	34.0	30.2	35.3	7.0	9.2	9.5	9.5	10.8			
	P	28.1	28.1	28.1	35.5	7.7	8.5	8.7	10.6	8.6			
	O	12.3	12.6	12.1	15.0	3.7	3.5	3.8	4.0	3.7			
TIRES, INCL. CHAFER	N	209.2	204.7	147.9	145.5	29.2	33.7	34.8	47.8	42.4			
	P	161.0	174.8	168.9	174.1	42.9	45.3	42.5	43.4	44.6			
OTHER RUBBER INDUSTRY[g]	N	22.3	25.7	17.3	16.3	4.1	4.3	4.0	3.9	5.1			
	P	30.2	35.1	26.7	27.8	6.4	7.7	5.9	7.8	6.0			
ROPE, CORDAGE & FISHLINE	N	33.0	30.6	29.1	31.7	7.5	7.6	8.0	8.6	8.7			
	P	13.1	15.8	14.4	12.2	3.3	3.4	2.8	2.7	4.5			
	O	84.4	92.1	84.8	95.5	23.3	25.7	23.1	23.4	28.4			
ALL OTHER[h]	A	1.9	4.7	4.0	1.1	0.3	0.4	0.2	0.2	0.3			
	N	95.0	68.1	50.6	54.4	12.3	10.9	14.6	16.6	14.1			
	P	146.0	292.0	214.3	144.6	39.4	33.6	30.4	41.2	35.0			
	O	41.4	38.1	32.9	41.0	8.8	9.7	10.3	12.2	8.0			
TOTAL ABOVE	**A**	**269.2**	**226.3**	**169.0**	**197.6**	**44.1**	**53.9**	**51.0**	**48.6**	**48.7**			
	N	**1538.9**	**1404.3**	**1165.6**	**1392.4**	**295.0**	**359.1**	**358.4**	**379.9**	**365.1**			
	P	**1363.4**	**1430.0**	**1134.8**	**1294.4**	**306.3**	**342.6**	**307.2**	**338.3**	**291.9**			
	O	**611.7**	**628.3**	**577.0**	**698.6**	**160.6**	**184.2**	**182.1**	**171.7**	**169.3**			
TOTAL DOMESTIC		**3783.2**	**3688.9**	**3046.4**	**3582.8**	**806.0**	**939.8**	**898.7**	**938.3**	**875.0**			
ALSO DIVIDED AS													
APPAREL		1530.4	1530.0	1128.2	1257.5	305.4	335.6	301.7	314.8	278.1			
HOME FURNISHINGS		1212.7	1129.4	1016.6	1328.7	272.0	351.3	350.3	355.1	335.3			
INDUSTRIAL		1040.1	1029.5	901.6	996.8	228.6	252.9	246.7	268.6	261.6			
SHIPMENTS OF FEED & PRODUCER-TEXTURED YARN (NONCARPET)[i]													
NYLON		167.4	159.6	122.3	127.1	30.9	32.8	31.5	31.9	31.3			
POLYESTER		942.0	991.3	737.9	832.4	201.0	221.8	192.2	217.4	173.6			
OLEFIN		40.9	33.5	26.8	28.0	6.2	8.2	7.4	6.2	5.6			

*. Includes Aramid in 1980 through 1982.

a. Filament yarn plus monofilament shipments by primary trade or end use; olefin includes spunbonded polypropylene but does not include spunbonded polyethylene.

b. Small poundages of polyester are included in All Other.

c. Small poundages of olefin are included in All Other.

d. Small poundages of nylon and polyester are included in All Other.

e. Other Broad Woven except carpets, tire fabric, flat belting, etc. The olefin poundages include other home furnishings applications only, i.e., industrial applications are in All Other.

f. Narrow Woven includes apparel ribbons and braids, auto seat belts and/or furniture webbing.

g. Small poundages of olefin are included in All Other.

h. All Other includes sewing thread and other industrial applications. The olefin poundages include sliver knit backing. Also includes indirect exports starting 1st Quarter 1980.

i. These poundages are included in the Total Domestic area above.

TABLE 12: STAPLE+TOW DOMESTIC SHIPMENTS

MILLION POUNDS

ITEM		ANNUAL DATA 1980	1981	1982	1983	QUARTERLY DATA 1983 1st Q	1983 2nd Q	1983 3rd Q	1983 4th Q	1984 1st Q	1984 2nd Q	1984 3rd Q	1984 4th Q
(R) RAYON (N) NYLON * (A) ACRYLIC+MODACRYLIC (P) POLYESTER (O) OLEFIN													
HOSIERY, SWEATERS & CRAFT YARNS[a]	A	275.7	255.6	230.5	237.3	58.1	64.3	60.4	54.5	54.4			
	NPR	11.5	8.9	8.8	9.5	2.9	2.7	2.2	1.7	1.4			
PILE FABRICS[b]	A	60.4	44.7	36.4	33.0	9.0	10.3	7.8	5.9	8.3			
	P	18.3	14.9	15.6	18.2	4.8	4.9	5.0	3.5	4.8			
OTHER CIRCULAR+FLAT KNIT[c]	R	9.8	10.9	5.7	3.5	1.0	1.2	0.9	0.4	1.2			
	A	125.0	91.6	112.6	129.5	31.5	32.2	33.0	32.8	32.0			
	P	296.3	300.7	288.8	354.4	91.5	91.1	85.8	86.0	77.6			
BLANKETS[b]	A	42.2	28.1	23.7	27.1	7.7	6.7	8.1	4.6	6.9			
	P	17.3	14.8	12.0	10.5	3.8	2.8	2.5	1.4	1.4			
OTHER BROAD WOVEN	R	201.6	224.7	146.6	182.1	40.8	45.3	47.0	49.0	48.9			
	N	53.0	52.4	56.4	59.0	15.4	16.6	14.2	12.8	12.3			
	A	42.3	33.0	25.7	32.5	7.7	8.8	8.2	7.8	9.4			
	P	1194.6	1107.0	889.0	1062.9	237.0	270.4	272.3	283.2	272.6			
	O	17.3	17.1	16.1	19.4	4.9	5.0	4.9	4.6	5.7			
CARPET FACE YARNS	R	+	0.3	0.1	0.2	+	0.1	+	0.1	0.2			
	N	631.5	617.4	594.4	815.2	175.3	220.7	215.9	203.3	194.6			
	A		Included in All Other										
	P	119.9	124.0	114.7	139.0	34.7	39.8	33.2	31.3	31.2			
	O	61.6	67.5	76.8	93.6	21.7	23.7	22.7	25.5	22.4			
FIBERFILL[d]	P	205.1	226.7	228.4	275.4	60.8	68.8	75.3	70.5	69.2			
FLOCK	NP	10.8	13.0	10.2	10.6	2.3	3.0	3.0	2.3	2.3			
	R	5.1	5.6	3.1	3.2	0.9	0.7	0.7	0.9	0.7			
NONWOVENS[e,f]	R	147.3	124.6	111.9	119.0	30.5	29.0	29.3	30.2	33.8			
	N	3.2	3.5	3.8	4.9	1.1	1.1	1.4	1.3	0.9			
	P	166.6	149.3	155.2	177.4	38.8	48.4	47.8	42.4	44.6			
	VINYON+O	34.6	42.7	39.0	61.5	10.2	13.0	16.5	21.8	25.2			
ALL OTHER	R	26.2	29.1	24.3	23.8	6.3	6.1	6.4	5.0	5.5			
	N	12.2	10.3	7.7	5.2	1.2	1.6	1.3	1.1	1.1			
	A	39.7	41.1	29.0	32.8	6.1	7.0	10.4	9.3	9.6			
	P	42.6	60.6	57.8	55.8	14.6	12.6	14.7	13.9	11.7			
	VINYON+O	1.5	4.7	7.0	8.9	2.9	2.4	1.0	2.6	0.4			
TOTAL ABOVE	**R**	**390.7**	**396.9**	**293.7**	**333.5**	**80.1**	**83.0**	**84.6**	**85.8**	**90.7**			
	N	**711.2**	**696.4**	**673.3**	**897.1**	**196.0**	**243.5**	**236.2**	**221.4**	**211.1**			
	A	**585.3**	**494.1**	**457.9**	**492.2**	**120.1**	**129.3**	**127.9**	**114.9**	**120.6**			
	P	**2071.0**	**2005.4**	**1767.5**	**2099.2**	**487.6**	**540.4**	**538.1**	**533.1**	**514.2**			
	VINYON+O	**115.0**	**132.0**	**138.9**	**183.4**	**39.7**	**44.1**	**45.1**	**54.5**	**53.7**			
TOTAL DOMESTIC		**3873.2**	**3724.8**	**3331.3**	**4005.4**	**923.5**	**1040.3**	**1031.9**	**1009.7**	**990.3**			
ALSO DIVIDED AS													
APPAREL		1632.9	1487.5	1321.7	1461.3	360.8	386.0	359.9	354.6	341.1			
HOME FURNISHINGS		1478.0	1442.9	1266.4	1630.0	363.9	432.9	424.8	408.4	404.7			
INDUSTRIAL		762.3	794.4	743.2	914.1	198.8	221.4	247.2	246.7	244.5			

* 1980 through 1982 poundages include Aramid.

a. Olefin poundages are included in All Other.

b. Rayon and nylon poundages are included in All Other.

c. Nylon poundages are included in All Other.

d. Rayon and acrylic poundages are included in All Other.

e. Wet & dry laid and needled batts only.

f. Acrylic poundages are included in All Other.

TABLE 13: SELECTED U.S. MAN-MADE FIBER IMPORTS FOR CONSUMPTION BY COUNTRY OF ORIGIN

THOUSAND POUNDS

ITEM & COUNTRY	1984 JAN	FEB	MAR	APR	MAY	JUNE	4 MONTHS 1984	1983
CELLULOSIC YARN, MONOFIL & STRIPS								
BRAZIL	55	5	0	0			60	90
CANADA	42	12	327	45			426	758
MEXICO	163	120	55	41			379	233
AUSTRIA	0	0	0	0			0	687
GERMANY, FED. REP. OF	714	327	396	256			1693	409
NETHERLANDS	28	40	40	57			165	125
UNITED KINGDOM	0	0	+	0			+	35
JAPAN	74	86	62	23			245	87
REP. OF KOREA	60	0	40	0			100	40
ALL OTHER COUNTRIES[a]	0	1	43	27			71	61
TOTAL CELL. YARN	**1136**	**591**	**963**	**449**			**3139**	**2525**
CELLULOSIC STAPLE+TOW								
CANADA	803	884	919	390			2996	1438
AUSTRIA	390	70	219	282			961	253
FRANCE	16	18	7	2			43	56
SWEDEN	164	432	190	92			878	707
UNITED KINGDOM	225	81	42	60			408	104
JAPAN	116	47	162	134			459	637
TAIWAN	0	0	0	0			0	27
ALL OTHER COUNTRIES[b]	0	+	0	+			+	3
TOTAL CELL. STAPLE	**1714**	**1532**	**1539**	**960**			**5745**	**3225**
NONCELLULOSIC YARN, MONOFIL & STRIPS								
CANADA	1284	1467	1745	2221			6717	2574
MEXICO	1317	1796	1574	1486			6173	984
FRANCE	224	222	104	133			683	652
GERMANY, FED. REP. OF	846	1097	2010	1482			5435	2169
ITALY	199	569	390	407			1565	242
NETHERLANDS	54	95	26	17			192	127
SPAIN	95	225	2	0			322	403
SWITZERLAND	17	101	71	51			240	339
UNITED KINGDOM	531	89	366	204			1190	1004
ISRAEL	111	72	84	43			310	553
JAPAN	1131	1338	1660	1574			5703	3190
REP. OF KOREA	42	55	37	24			158	100
TAIWAN	122	+	60	36			218	88
SOUTH AFRICA	347	563	112	450			1472	0
ALL OTHER COUNTRIES[c]	231	233	75	108			647	124
TOTAL N.C. YARN	**6551**	**7922**	**8316**	**8236**			**31025**	**12549**
NONCELLULOSIC STAPLE+TOW								
CANADA	1028	1102	1219	943			4292	1443
COSTA RICA	155	354	237	249			995	49
MEXICO	2812	2217	1451	1342			7822	2403
BELGIUM	32	61	38	41			172	114
FRANCE	483	507	834	512			2336	3056
GERMANY, FED. REP. OF	1965	1587	2599	2064			8215	5839
ITALY	1182	791	1234	1519			4726	5052
NETHERLANDS	88	140	76	63			367	180
SWITZERLAND	22	+	113	58			193	55
UNITED KINGDOM	1306	1060	1711	1113			5190	3177
AUSTRALIA	0	24	0	0			24	91
ISRAEL	45	28	0	30			103	112
JAPAN	1334	926	1361	1092			4713	3703
REP. OF KOREA	0	40	62	120			222	80
TAIWAN	826	471	1576	1265			4138	1700
ROMANIA	138	98	299	488			1023	0
SOUTH AFRICA	0	213	0	82			295	8
ALL OTHER COUNTRIES[d]	394	88	278	191			951	90
TOTAL N.C. STAPLE	**11810**	**9707**	**13088**	**11172**			**45777**	**27152**

+ Means a nominal poundage.

Other countries supplying 1984 poundages are:

a. Belgium 27, Italy 1, France 22 and Switzerland 21.

b. Brazil + and Federal Republic of Germany +.

c. Australia 75, Austria 113, Belgium 62, Brazil 122, Denmark 32, Finland 1, India +, Norway 27, Portugal 1, Romania 197 and Sweden 17.

d. Austria 30, Brazil 416, Denmark 18, Finland 37, Honduras 75, Hong Kong 2, Ireland 22, Poland 13, Portugal 41, Spain 25, Sweden 61 and Turkey 211.

TABLE 14: U.S. MAN-MADE FIBER IMPORTS FOR CONSUMPTION

THOUSAND POUNDS

ITEM	COMMODITY NUMBER AS OF 1/1/78	1984 JAN	FEB	MAR	APR	MAY	JUN	4 MONTHS 1984	1983
CELLULOSIC FIBERS									
YARN - SINGLES									
TEXTURED	310.0106 & .0206	0	0	38	79			117	206
OTHER	310.0130 & .0230[a]	1136	585	880	359			2960	2270
MONOFILAMENTS	309.0310 & .0610	0	0	0	2			2	+
STRIPS, $1/LB & UNDER	309.2000*	0	6	45	9			60	49
SUBTOTAL ABOVE		**1136**	**591**	**963**	**449**			**3139**	**2525**
STAPLE	309.4320 & .4325	1517	1483	1365	900			5265	2993
GROUPED FILAMENTS	309.3010 & .3110	197	49	174	60			480	232
SUBTOTAL ABOVE		**1714**	**1532**	**1539**	**960**			**5745**	**3225**
WASTE, ADVANCED & NOT ADVANCED	309.6500 & .7510	**40**	**69**	**6**	**41**			**156**	**82**
NONCELLULOSIC FIBERS									
YARN - SINGLES									
TEXTURED - NYLON	310.0109 & .0209	1064	1571	1615	2435			6685	1159
- POLYESTER	310.0110 & .0210	821	1167	834	867			3689	140
- OTHER	310.0114 & .0214	651	604	649	613			2517	2493
OTHER - NYLON	310.0149 & .0249	2022	2221	2918	2099			9260	3402
- POLYESTER	310.0150 & .0250	1328	1658	1618	1504			6108	3620
- OTHER	310.0170 & .0270[b]	202	274	310	281			1067	1012
MONOFILAMENTS	309.0200 & .0330[c]	383	325	282	336			1326	575
STRIPS, OVER $1/LB	309.2100 & .2500*	80	102	90	101			373	148
SUBTOTAL ABOVE		**6551**	**7922**	**8316**	**8236**			**31025**	**12549**
STAPLE - NYLON	309.4338	2921	2034	2936	3665			11556	8639
- POLYESTER	309.4342	3115	2489	2224	1816			9644	3506
- ACRYLIC	309.4345	1081	1257	913	1297			4548	3346
- OLEFIN	309.4346	325	76	474	173			1048	445
- OTHER	309.4355	1109	969	1627	1551			5256	3363
GROUPED FILAMENTS									
NYLON	309.3030 & .3130	2271	1604	2787	1509			8171	5234
POLYESTER	309.3040 & .3140	227	593	1026	611			2457	186
ACRYLIC	309.3050 & .3150	646	538	978	355			2517	2191
OTHER	309.3065 & .3165	115	147	123	195			580	242
SUBTOTAL ABOVE		**11810**	**9707**	**13088**	**11172**			**45777**	**27152**
WASTE, NOT ADVANCED									
- NYLON	309.6625	2390	4767	2062	1623			10842	6550
- POLYESTER	309.6630	634	810	621	775			2840	3629
- ACRYLIC	309.6645	37	1	0	0			38	229
- OTHER	309.6660	139	213	452	265			1069	916
NOILS & GARNETTED FIBERS	309.6000 & .7000*	56	62	12	0			130	26
OTHER WASTE, ADVANCED	309.7525 - .7555	105	300	179	299			883	1249
SUBTOTAL ABOVE		**3361**	**6153**	**3326**	**2962**			**15802**	**12639**
TOTAL MAN-MADE ABOVE		**24612**	**25974**	**27238**	**23820**			**101644**	**58172**
OTHER MAN-MADE FIBER TOPS, YARN & THREAD									
YARN - PLIED									
TEXTURED - CELLULOSIC		0	+	0	0			+	0
- NONCELLULOSIC	310.1015[d] & .1109[e]	1109	1204	1068	968			4349	2235
OTHER - CELLULOSIC	310.1030 & .1135[f]	2	12	8	8			30	44
- NONCELLULOSIC	310.1050 & .1070[g]	146	84	162	183			575	1070
SPUN YARN - CELLULOSIC	310.4005 & .4030[h]	104	52	136	91			383	211
- OTHER	310.4015 & .4027[i]	757	3042	3050	2639			9488	8824
OTHER YARNS - NES, INCL. CHENILLE	310.6029 - .8000	121	112	118	46			397	1222
HANDWORK YARNS & SEWING THREAD	310.9000 - .9140	410	250	442	318			1420	973
SLIVER, TOPS & ROVING	309.9000	589	756	607	639			2591	1769
TEXTILE GLASS FIBER	309.2800 & .2900[j]	2128	2900	2813	1725			9566	7104
GRAND TOTAL ABOVE		**29978**	**34386**	**35642**	**30437**			**130443**	**81624**

SOURCE: U.S.Census Bureau Report IM145X.

NES - Not elsewhere specified.

\+ Means a nominal poundage.

* These items are not reported by the Census as cellulosic vs. noncellulosic. Any separation between cellulosic and noncellulosic is estimated, based mainly on average declared value.

a. Also includes 310.0510 & .0610.

b. Also includes 310.0530, .0550, .0630 & .0650.

c. Also includes 309.0340, .0365, .0500, .0630, .0640 & .0665.

d. There may be some acetate yarn in these data, but the Census figures do not permit a segregation.

e. Also includes 310.1110 & .1114.

f. Also includes 310.2010 & .2110.

g. Also includes 310.1150, .1155, .1170, .2030, .2050, .2130 & .2150.

h. Also includes 310.5005 & .5030.

i. Also includes 310.4046, .4047, .4050, .5015, .5046, .5047, .5049 & .5051.

j. Chiefly roving. Also includes 309.9800 & .9900.

TABLE 15: SELECTED U.S. MONTHLY TEXTILE FIBER DATA

MILLION POUNDS

ITEM	1984 JAN	FEB	MAR	APR	MAY	JUN	YEAR TO DATE[a] 1984	1983
TOTAL SHIPMENTS[b]								
MAN-MADE FIBER DATA[c]								
YARN+MONOFILAMENTS[d]								
ACETATE	**17.8**	**16.9**	**19.8**	**17.8**	**20.3**		**92.6**	**89.7**
NYLON[e] - INDUSTRIAL[f]	28.1	29.9	32.8	33.4	32.4		156.6	121.5
- LOW DENIER INDUSTRIAL[g]	3.1	3.0	3.0	2.9	2.7		14.7	13.3
- CARPET	70.0	62.9	65.5	72.0	70.4		340.8	276.3
- TEXTILE	34.3	31.3	31.1	32.7	30.6		160.0	159.7
POLYESTER - INDUSTRIAL[f]	24.5	25.2	28.3	26.4	27.6		132.0	125.5
- LOW DENIER INDUSTRIAL[g]	1.9	2.1	2.1	2.2	2.0		10.3	10.3
- TEXTILE	84.9	69.9	67.1	75.3	70.7		367.9	432.9
OLEFIN[h]	52.6	56.9	64.1	58.3	62.5		294.4	289.0
TOTAL NONCELLULOSIC ABOVE[i]	**299.4**	**281.2**	**294.0**	**303.2**	**298.9**		**1476.7**	**1428.5**
STAPLE+TOW+FIBERFILL[j]								
RAYON	**32.4**	**31.6**	**38.0**	**35.9**	**32.5**		**170.4**	**146.1**
NYLON[e]	80.0	65.9	70.8	82.3	74.1		373.1	358.7
ACRYLIC+MODACRYLIC	53.0	52.2	63.9	58.2	56.7		284.0	278.9
POLYESTER	172.5	177.5	197.0	200.8	190.2		938.0	888.2
OLEFIN+VINYON	18.6	18.5	20.4	20.2	19.9		97.6	71.3
TOTAL NONCELLULOSIC ABOVE	**324.1**	**314.1**	**352.1**	**361.5**	**340.9**		**1692.7**	**1597.1**
END-OF-MONTH STOCK								
YARN+MONOFILAMENTS								
ACETATE	**14.3**	**14.6**	**13.2**	**13.6**	**11.8**		**11.8**	**11.8**
NYLON[e] - INDUSTRIAL[f]	23.2	23.7	23.1	22.1	21.3		21.3	23.4
- LOW DENIER INDUSTRIAL[g]	4.0	4.4	5.7	5.7	5.9		5.9	5.1
- CARPET	54.0	58.8	60.4	57.0	60.4		60.4	48.2
- TEXTILE	36.3	36.9	37.5	36.4	37.2		37.2	35.3
POLYESTER - INDUSTRIAL[f]	22.0	22.3	20.2	19.4	18.5		18.5	25.3
- LOW DENIER INDUSTRIAL[g]	3.4	3.5	3.8	3.5	3.8		3.8	2.4
- TEXTILE	77.2	82.8	86.4	84.1	85.1		85.1	68.5
OLEFIN[h]	58.1	59.3	60.9	61.5	60.1		60.1	53.3
TOTAL NONCELLULOSIC ABOVE[i]	**278.2**	**291.7**	**298.0**	**289.7**	**292.3**		**292.3**	**261.5**
STAPLE+TOW+FIBERFILL								
RAYON	**25.1**	**27.4**	**25.3**	**23.2**	**27.5**		**27.5**	**34.3**
NYLON[e]	70.2	76.0	79.3	71.7	74.0		74.0	53.3
ACRYLIC+MODACRYLIC	77.3	79.6	75.4	75.6	78.1		78.1	59.5
POLYESTER	180.2	188.6	188.7	177.4	178.0		178.0	154.1
OLEFIN+VINYON	20.4	21.2	19.8	20.1	20.7		20.7	15.3
TOTAL NONCELLULOSIC ABOVE	**348.1**	**365.4**	**363.2**	**344.8**	**350.8**		**350.8**	**282.2**
WOOL & COTTON CONSUMPTION								
APPAREL CLASS WOOL	13.3	15.2	14.7				43.2	35.9
CARPET CLASS WOOL	0.9	0.8	0.9				2.6	2.6
TOTAL RAW WOOL	14.2	16.0	15.6				45.8	38.5
RAW COTTON	246.1	242.7	249.9	226.8	232.5		1198.0	1168.0

a. Year-to-date totals except for stock, which is the latest month's data.
b. The monthly production of each fiber may be calculated as total shipments plus a stock increase, or less a stock decrease, over the month.
c. Producers' total domestic plus export shipments.
d. Rayon yarn data are available annually only; see page 37 of the March/April issue.
e. Data for nylon exclude aramid.
f. Industrial is defined as 500 denier and coarser with an Instron tenacity of 7 grams or more per denier.
g. Low denier industrial is defined as finer than 500 denier with an Instron tenacity over 5.5 grams per denier.
h. Olefin yarn+monofilaments also includes spunbonded polypropylene and film fiber produced for textile end uses.
i. Saran and spandex data are not included in these totals. See page 37 of the March/April issue for annual data on these yarns.
j. Acetate staple+tow data are available annually only; see page 37 of the March/April issue.